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LESSONS ON ART

BY

J. D. HARDING

EDITED BY

WILLIAM WALKER.

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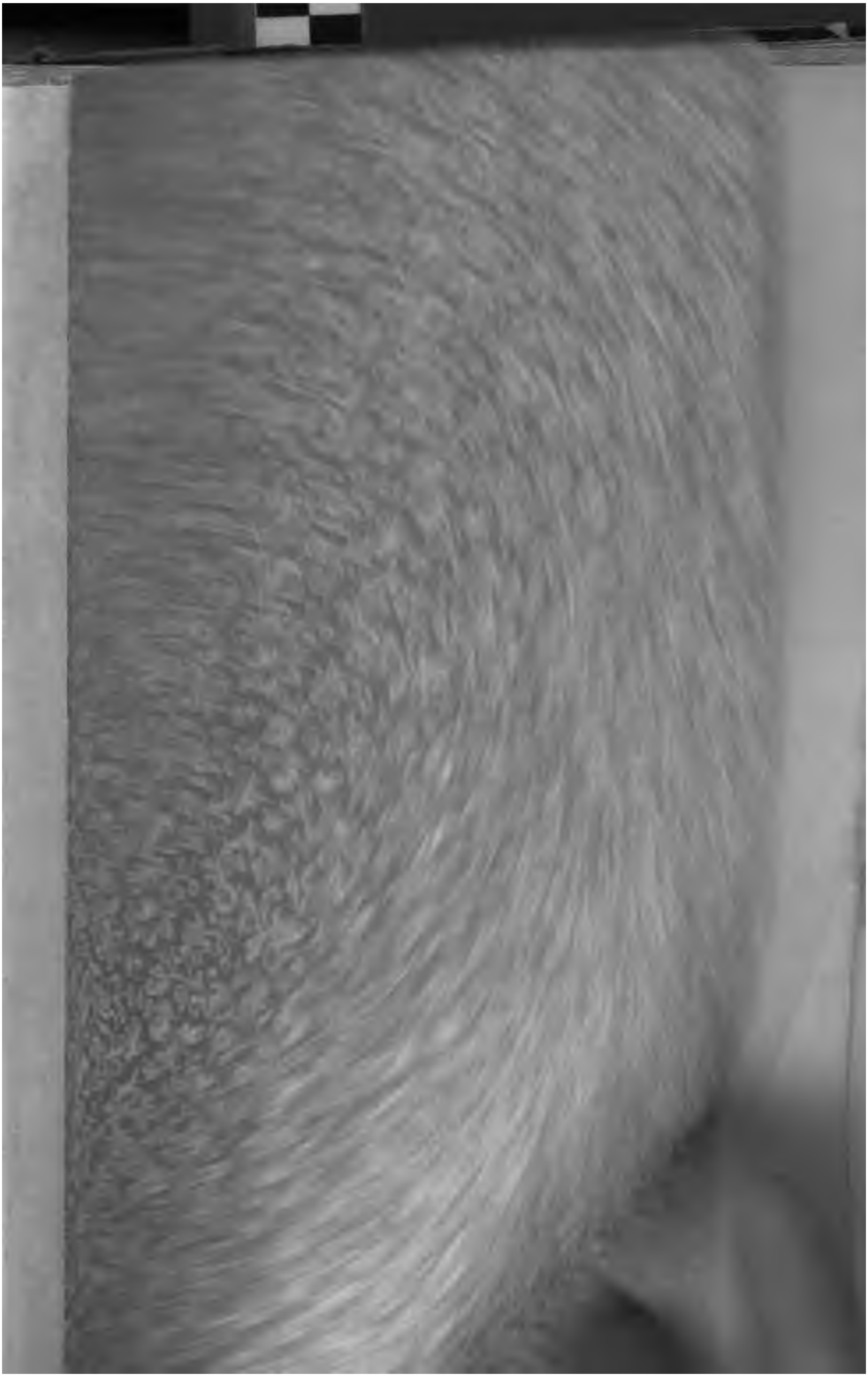

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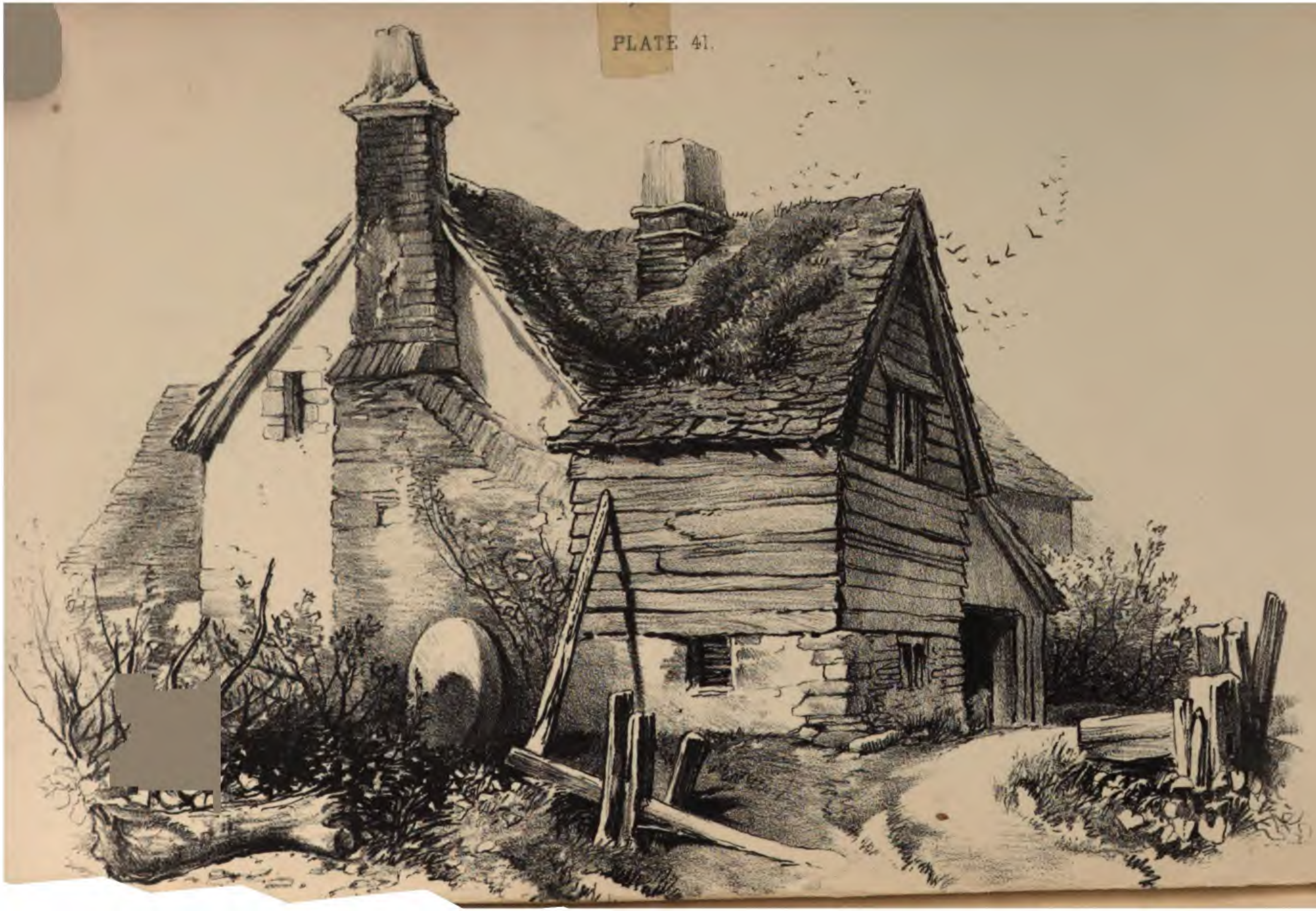

DEDICATED TO
HIS ROYAL HIGHNESS, ALBERT, PRINCE OF WALES,
BY PERMISSION OF HER MOST GRACIOUS MAJESTY
THE QUEEN.

LESSONS ON ART.

BY

J. D. HARDING,

AUTHOR OF 'ELEMENTARY ART; OR, THE USE OF THE CHALK AND LEAD PENCIL ADVOCATED AND EXPLAINED,'
'THE PRINCIPLES AND PRACTICE OF ART,' 'LESSONS ON TREES,'
'GUIDE AND COMPANION TO LESSONS ON ART,' ETC.

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AUTHOR OF 'FOREST TREES,' 'HANDBOOK OF DRAWING,' 'PUPIL-TEACHERS' HANDBOOK,' ETC. ETC.

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PREFACE TO THE FIRST EDITION.

THE power either to draw, or to appreciate Art and Nature, is, and must be, the result of education. This truth, although now more generally acknowledged than formerly, is by no means so universally acknowledged as it should be, in order that the human mind may progress in Art, as it does in every other pursuit.

This power is still falsely considered to be an inborn faculty, which, if not possessed in some remarkable degree, is not present in any valuable degree. Were this true of the power to draw, it would be true of every other faculty. Orators, poets, and writers would monopolise language; science, mental and material, would belong only to philosophers; and music would be the exclusive inheritance of Handels, Haydns, and Mozarts. To argue that those who have shone as orators, poets, philosophers, or musicians, have faculties denied to all the rest of mankind, would be absurd; nor would it be less at variance with truth to insist that painters of genius only can have the necessary power to draw.

The faculties of the mind called into action by the practice of Art, belong to all men in some degree—they are the same as those employed when the mind essays any other mental acquisition; but as each pursuit exercises and improves one faculty, or set of faculties, more than another, so the study of Art, besides demanding the exercise of such as are necessary to other pursuits, employs those which are more peculiarly necessary to its own particular attainment. It should therefore, be esteemed as an important coadjutor with other pursuits, for it co-operates in the development of every mental faculty and feeling, and especially helps to bring into life and activity such as, without its aid, would lie dormant or unknown. If this be admitted (and I think it can scarcely be denied), then it may be fairly asserted that no mind can be fully developed but by its assistance.

If any additional evidence be required in proof of this, we have only to turn to Nature, which has obviously been fashioned for our enjoyment, else why the pleasure derived from its contemplation? why the gratification in seeing that Art has fixed its transient beauties? In Nature are to be found the sources of all the pleasure we derive from the colour, form, character, and combination of objects.

Individuals who are not made acquainted with the beauties of Nature through the medium of Art, acknowledge, indeed, their existence as an undeniable fact, but those only who have studied Art, are conscious how they abound on all sides, or can be fully alive to their influence. It is one thing to acknowledge the existence of beauty; it is another to feel its power. Those who have not studied Art, see as through a glass darkly the beauties which the Creator has spread around in exhaustless abundance, and are but faintly conscious of their ameliorating effects on the mind and feelings. A portion only of the charms of Nature can be realised; the rest, for those who are ignorant of Art, have been all but created in vain. Need more be said to induce the adoption of the study of Art as an essential requisite? It is surely a conclusive argument in its favour, that, by its study, the feelings become refined, and the mind awakened to a new sense and new powers, by which it can estimate what has been done by a beneficent Creator for its gratification, and can find occasion to be grateful for the bounty which has supplied such stores of refined and elevating enjoyment.

A strong argument in favour of the study of Art may be deduced, not only from its growing diffusion and general employment, apart from what is shown in the higher walks of painting and sculpture, but in its application to manufactures of every kind, and as an adjunct in conveying just and correct ideas, on many important branches of knowledge.

There never was a time when Art was so much in request for the embellishment of what ministers to our physical wants. We breathe an atmosphere of Art: objects, whether of small or great utility, now teem with every beauty the imagination can contribute. If we acknowledge its advantage in these respects, we cannot doubt its high importance, nor overrate its value in conveying ideas, and in thus quickening the march of mind. Scarcely a publication is now issued and not illustrated. Does not Art, whilst gratifying the feelings, penetrate the intelligence, and fix its own truths on the mind with a power beyond the reach of words? The press daily affords its millions of proofs of these facts; spreading in all directions communications of vast commercial importance in no other way communicable, and thus creating and extending sources of wealth among the nations. Those geographically remote are made proximate by a language which leaps the barriers of differing tongues, and speaks what can be universally comprehended.

It would be useless to multiply arguments in favour of the study of Art; what more than the foregoing considerations could enhance its value,—what less could do it justice?

J. D. HARDING.

EDITOR'S PREFACE.

In the present Edition it has been intended to render the work as practicable as possible; and the Editor is persuaded that no student can go through it conscientiously without gaining a very large amount of knowledge, both artistic and otherwise, which will, in after life, go far to enhance the appreciation of all that is beautiful and true.

The mere power to copy is of little consequence, but the power to observe accurately and to deduce truly should be one of the highest aims of youth. Moral and mental vitality depend upon this power. Principles founded in truth are eternal in their nature and universal in their application; and students who secure to themselves such principles of action are more likely to succeed in their pursuits than those who base their practice merely upon a stock of unarranged facts.

It is from a conviction of the utility of this work that the Editor has undertaken the revision of it.

The present Edition contains a copious index, paragraph numbers, and headings, and a large number of new woodcut and lithographic subjects. Several parts of the work have been simplified and condensed, and an important chapter from the *Guide and Companion*, is now absorbed into its pages.

57 King Street, Manchester.
1866.

PREFACE TO THE NINTH EDITION.

THE rapid sale of another Edition may be taken as an indication of the usefulness of the work. The Editor, in again revising it, has made such alterations and additions as have suggested themselves in the actual use of it in his own extensive practice.

PREFACE TO THE TENTH EDITION.

IN this Edition I have endeavoured to carry out the spirit of Mr. Harding's own words—'*practical utility both to those who learn and those who teach.*'

STUDIO: 57 KING STREET, MANCHESTER
1880.

PREFACE TO THE ELEVENTH EDITION.

I HAVE again gone carefully through the work, and have made it as complete as I have been able. It must be remembered, however, that in going through a museum, or a gallery of pictures, the value to us will depend, not so much on what we see with our eyes, as in what we carry away in our minds. So it will be with this volume.

57 KING STREET, MANCHESTER.
1885.

LESSONS ON ART.

SECTION I.

ON CUTTING AND HOLDING THE PENCIL.

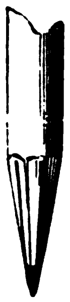


Fig. 1.

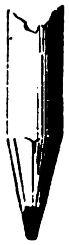


Fig. 2.

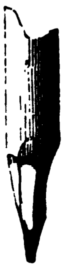


Fig. 3.

The quality and condition of materials and instruments bear an important relation to the work. Instruments should always be adapted to the work to be accomplished. In cutting your pencils, a *sharp* knife should be used, and the support of the wood left more or less in proportion as the pencil is hard or soft, as in Figs. 1 and 2. If you use a blunt knife, after much waste, you may obtain a result like Fig. 3, which cannot be used firmly without further fractures.

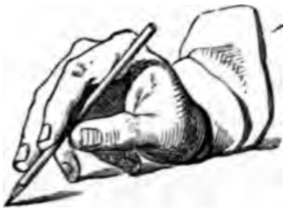


Fig. 4.

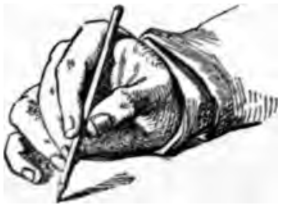


Fig. 5.

The pencil should be rightly held. In drawing, the pencil should not be held like the pen, as shown in Fig. 4, but in the way shown in Fig. 5,—that is between the first and middle fingers and the thumb, bringing the latter down nearly as low as the tips of the fingers. Allow the third and little fingers to come forward, and not to be turned back towards the palm of the hand, as they are when writing. When thus holding the pencil, you may soon learn to draw lines with facility in any direction; the motion being made with the fingers only, or with the whole hand from the wrist.

LESSON 1.

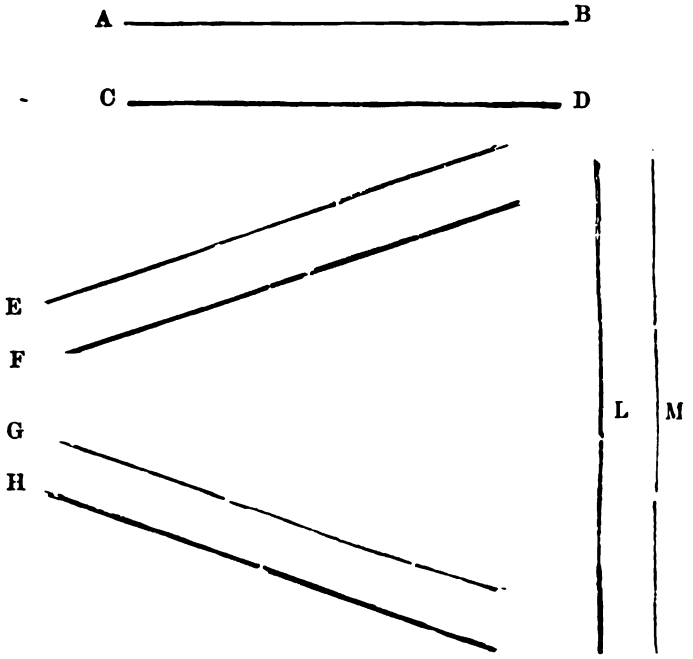
1. **The work to be done and how to do it.**—The example contained in this Number consist of certain elementary forms, which, though but rarely seen in naturally organised bodies, are yet very generally found in all the works of man, and constitute a *standard* by which you may estimate the obliquity, curvature, or irregularity of lines. As these forms will be frequently referred to in the future Numbers, and where their practical application will be more fully developed, it is necessary, therefore, that you should not only learn to draw them correctly, but also with facility and from memory.

2. However simple these Lessons may appear to you, they are, notwithstanding, the bases on which your future knowledge must rest; they should, therefore, be *most carefully studied and completely acquired,* otherwise the future development of their principles cannot possibly be clearly comprehended. The order of instruction is regularly progressive: your first Lesson is preparatory to the second, the second to the third, and so on. Each, in the order given, should be thoroughly mastered before you attempt the next, that you may be able to call to mind and draw the example directly that it is referred to, *and form a clear mental perception of it.*

3. The instructions annexed to every Lesson should be carefully read over, before any attempt be made to put them in practice; and each lesson should be well learned before you attempt the one following, as the instructions contained in the previous Lessons will not be repeated, it being always supposed that you have acquired them perfectly, and in the order in which they are presented. If what is thus done should be wrong, your tutor, if you have one, will examine whethe you are able to discover the errors, and can yourself make the necessary corrections, not from the eye, but from a positive knowledge of the subject. *No Lesson can be said to be really learned, unless this can be done.*

4. It is a good plan for some one to read aloud to you the written instructions, whilst you examine the drawing to which they refer; and doing this alternately for another, both you and a fellow-pupil will learn at the same time more rapidly and with less fatigue.

5. You should be furnished with a straight and a triangular ruler, and a pair of compasses, to be used *only when you have first tried each Lesson by the eye,* and as here recommended. The object is, first to exercise your eye, and then to set before it rigid accuracy, from the production and contemplation of which your hand and eye will become accurate, without the aid of mathematical instruments.



6. **On straight Lines.**—Your first step in Art is, to acquire the power to draw straight lines, such as are given in all the Lessons of this Number. These consist mostly of three kinds: horizontal, as **A B**, **C D**; perpendicular, as **L**, **M**; and oblique, as **E**, **F**, **G**, **H**. The horizontal and oblique lines of this Lesson must be drawn with your elbow close to your side; but before you essay to draw them, place dots for each extremity, first putting down the one on the left.

7. **On Mental Work.**—Place a dot on the left hand at **A**, and another on the right at **B**. In doing this, you are obliged to reflect on two things: first on the

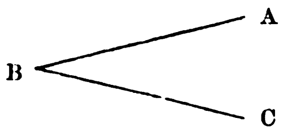
distance of **B** from **A**, so that the line may be of the required length; secondly, that **B** may be level with **A**, so that the line required may be horizon Thus you obtain a *mental* perception of the line required; and in proportion you obey these conditions, and thus obtain a true *mental* perception, so your hand obey its dictates, and draw the line accordingly, truly or fals *Clear mental perception of what is to be done, previous to any operation of the ha is the characteristic and important principle on which this work is framed, and to I must claim your especial attention, as your success depends on its being in all implicitly followed.*

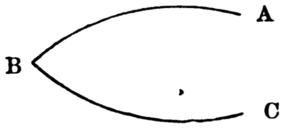
8. **On correcting Errors.**—If, when you have drawn the line **A B**, you that instead of being horizontal, it slopes in some way, you must not rub it but another dot must be placed for **B**, and having assured yourself of its cor position, draw it firmly, and *then* rub out the wrong one.

9. **Definite Lines to be drawn first.**—Perpendicular and horizontal lines sho always be drawn before slanting lines, because they are definite or fixed lines.

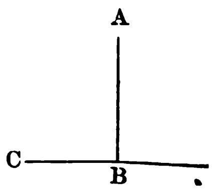
LESSON 2. On Angles.

10. **Definition of an Angle.**—An angle is the space between two lines meet at a point, **A B C.** The two lines forming an angle are called its legs. The of the angle depends on the inclination of either of these legs to the other, not on their length.



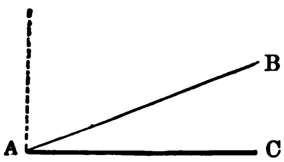


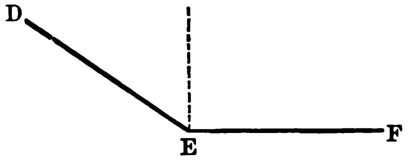
11. **Kinds of Angles.**—There are three kinds of angles, namely, right, ac and obtuse angles.



12. **Right Angles.**—All *Right Angles* are of the same size, being formed by a line so falling upon another as to make the angles on both sides equal, as **A B C, A B D.**

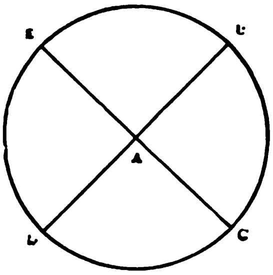
13. **Acute Angle.**—An *Acute Angle* is one that is less than a right angle, **B A C**.





14. **Obtuse Angle.**—An *Obtuse* or *Blunt Angle* is an angle greater than a right angle, as **D E F**.

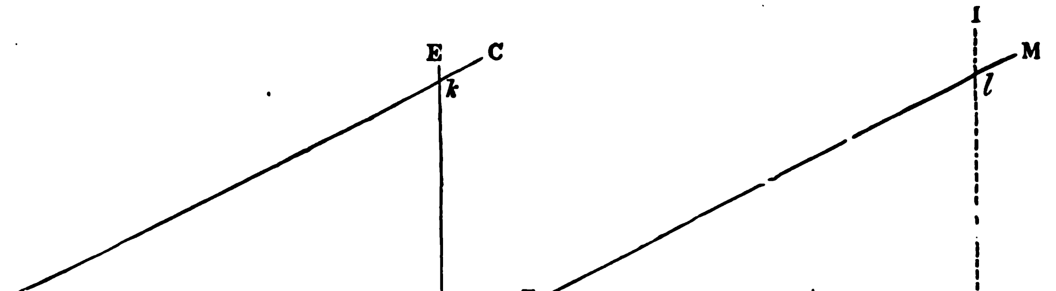
Acute and obtuse angles may vary in size,—the right angle never.



15. **Measurement of Angles.**—Angles may be measured by means of the circle, as follows: every circle, large or small, is divisible into three hundred and sixty parts or degrees. Every circle can contain four right angles and no more; and as all right angles are of the same size, all must occupy equal spaces, and contain an equal number of degrees, which number is the fourth part of a circle, or ninety degrees, as **E A D**, &c.

16. From this it will be seen that the number of degrees in, or the obliquity of, acute and obtuse angles, can be ascertained only by comparing them with *Right angles;* thus the *right angle becomes a sort of standard by which to calculate all other angles.*

LESSON 3. On Angles (*continued*).



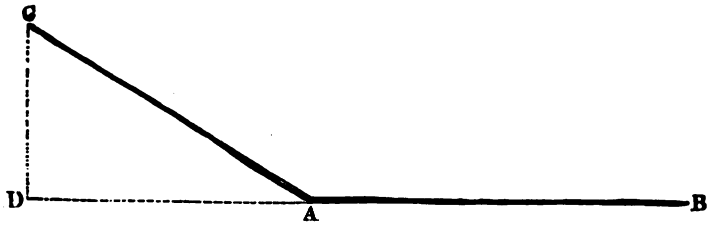
The Given Angle.

The Copy.

17. **How to copy Angles.**—In copying the given angle **B A C**, take any point, **D**, on the line **A B**, and from this point draw the perpendicular **D E**, till it touches

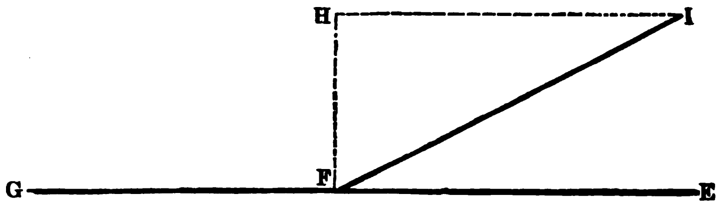
A C at **E.** This much being done as regards the given angle, now draw for your copy of it a line **F G**; from the point **F** mark off as nearly as you can the length **F H** equal to **A D**, and from **H** draw a perpendicular line **H** *l* equal to **D** *k*; draw a line from **F** through *l* to **M**, which will give the angle required.

LESSON 4.



18. An obtuse angle, as **C A B**, may be readily copied by using the auxiliary right angle **A D C.**

LESSON 5.



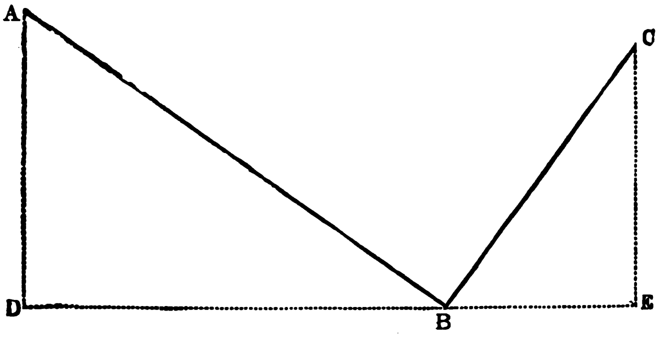
19. Draw the line **G F E.** Fix on the point **F**, and set up from it a perpendicular equal to **F H**, then fix on a point for **I**, which must be level with **H**, and of the required distance from it, draw **I F**, and the obtuse angle required, **I F G**, is obtained. This mode equally obtains the acute angle **I F E.**

20. You will thus see that acute or obtuse angles can only be copied accurately by comparison with a right angle, and that, to judge correctly of the obliquity of any lines, they must be compared with perpendicular or horizontal lines—these being the standards of comparison.

21. **Importance of the Right Angle.**—As all rectilinear (straight-lined) objects perpetually present to the eye angles of every variety, acute or obtuse, it is of great importance that you should be ready with some mechanical means of ascertaining, and of accurately imitating, the obliquity of lines; this power when completely acquired will render the following Lessons comparatively easy to you; indeed, without some such preparations, they would be with great difficulty practicable at all. Hence these are most important Lessons, and such as you will have constant occasion to practise and apply. To enable you to become adroit in measuring such angles, it is of great importance that you always draw the lines in the order and in the manner directed. Any attempt to do them otherwise, or to copy the examples, regardless of the instructions accompanying them, is only wasting your time. In so doing you will make no more progress in Art than if you were sleeping,—in fact, merely copying the examples by the eye, without reference to the written instructions, is putting your mind to sleep; whereas my object is to keep it awake and active.

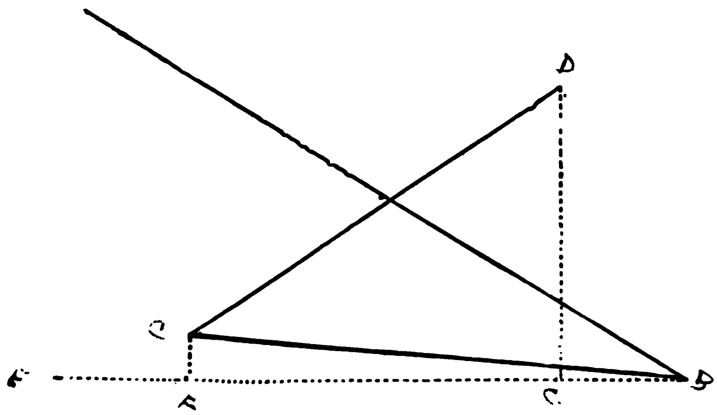
The next two following Lessons supply other examples for measuring angles.

LESSON 6.



22. In copying the angle **A B C**, the horizontal line **D E** must be drawn through **B**, and then perpendicular lines from **A** and **C**, till they touch the base line in **D** and **E**. It may then be readily copied by means of the right angles.

LESSON 7.



23. In this Lesson you have a still more complicated figure, with more lines and angles. To obtain these, with the slope and length of the lines in their relation to each other, would be very difficult, unless by employment of the means already described. It is only necessary for you to apply these, when you will find it as easy to draw these lines as any others.

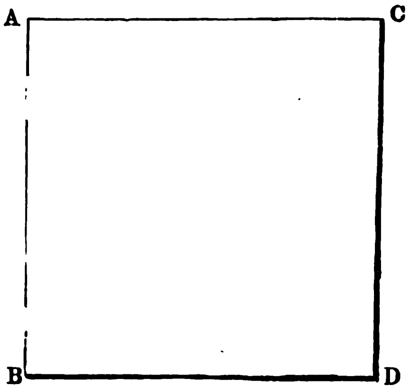
LESSON 8.

24. **Questions for Examination.**—In order to prove to yourself that you are in possession of the information I have desired to convey, a series of questions is appended which you should be able to answer satisfactorily:—

1. For what reasons do you place a dot for the commencement and termination of a line before you draw it?
2. How do you proceed to correct any line which you may discover to be wrong?
3. What is parallelism?
4. When there are perpendicular, horizontal, and oblique lines, which should be drawn first, and why?
5. What is an angle?
6. How many kinds of angles are there?
7. What is a right angle? Draw it, and explain its properties.
8. What is an acute angle? and in what does it differ from a right angle?

9. What is an obtuse angle? Draw it, and explain in what respect it differs from the others.
10. How many degrees are there in a circle?
11. What part of a circle is a right angle, and how many degrees does it contain?
12. By what means do you draw an acute angle equal to a given acute angle? or, in other words, how do you copy it accurately?
13. How do you measure an obtuse angle? Prove more than one method.

LESSON 9. On Superficies.



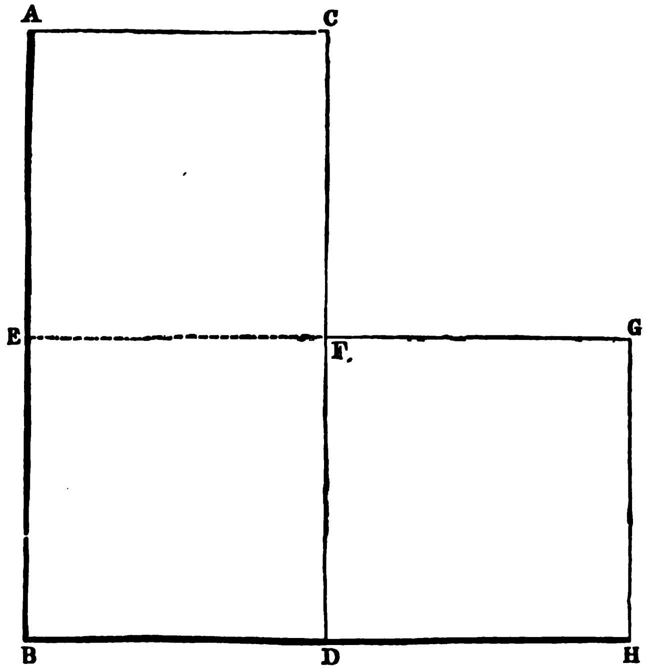
25. **The Square. Important Lesson.**—This is a most important Lesson, and unless you understand it well and draw it accurately, you had better not proceed further. We should not forget that we are now sowing seeds which *must* by-and-bye germinate in truth or error. If you draw this figure inaccurately, and pass it by as a square, you not only deceive yourself, but the bad effects upon you must continue long: but if, instead of being anxious to get to something more pleasing, you value truth rightly, and give whatever care may be necessary to understand and to draw this simple figure with *absolute accuracy*, both the eye and the mind will have made a safe step towards the formation of habits which cannot but give pleasure.

26. This figure is constantly applied as a test or standard by which to judge of other figures. It is as important to you as a T square is to a joiner or to an architect, or as a plumb-line to a builder.

27. Before you proceed to draw this figure, note well this definition of i that it consists of four equal sides, and all its angles are right angles. Noth else is a square.

28. When the four lines are drawn, you must carefully examine and c pare them with each other, to see that the two lines **A B** and **C D** are both p pendicular, of the same height and parallel; and also that **A C** and **B D** are b horizontal, of the same length and parallel; and that all the four angles right angles.

LESSON 10.



29. **Parallelograms. On Proportion**—In this Lesson we immediately come to application of the last. The figure **A B C D** is called a rectangular parallelogra and is in the proportion of one to two;—that is, the line **A B** is twice as l as the line **A C**, and forms a right angle with it. To the right of this figur joined a square forming another parallelogram **E B H G**, of precisely the same s and proportions as the upright one—viz., one to two.

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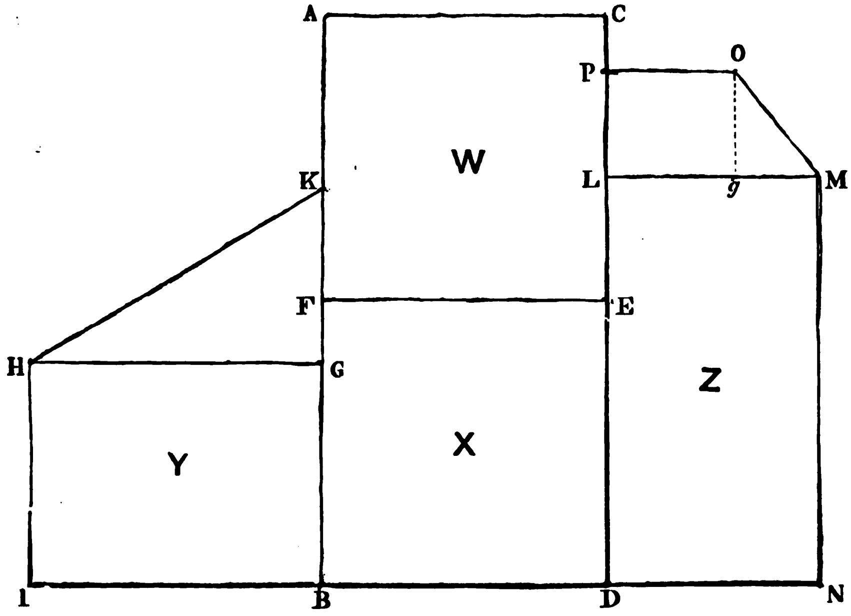
* The leaf of this Drawing Book is a parallelogram, and is rectangular—that is, all its are right angles.

LESSON 11.

30. **Example in Proportion.**—In this you must, without any example, further carry out the last Lesson by drawing first a rectangular parallelogram of the proportions of *one to three upright;* and another of *one to three and a half onwards.* After accomplishing this you may refer to Lessons 13 and 26, where you may readily find forms having the same proportions. (See also *Handbook of Drawing,* Chapter 14.)

LESSON 12.

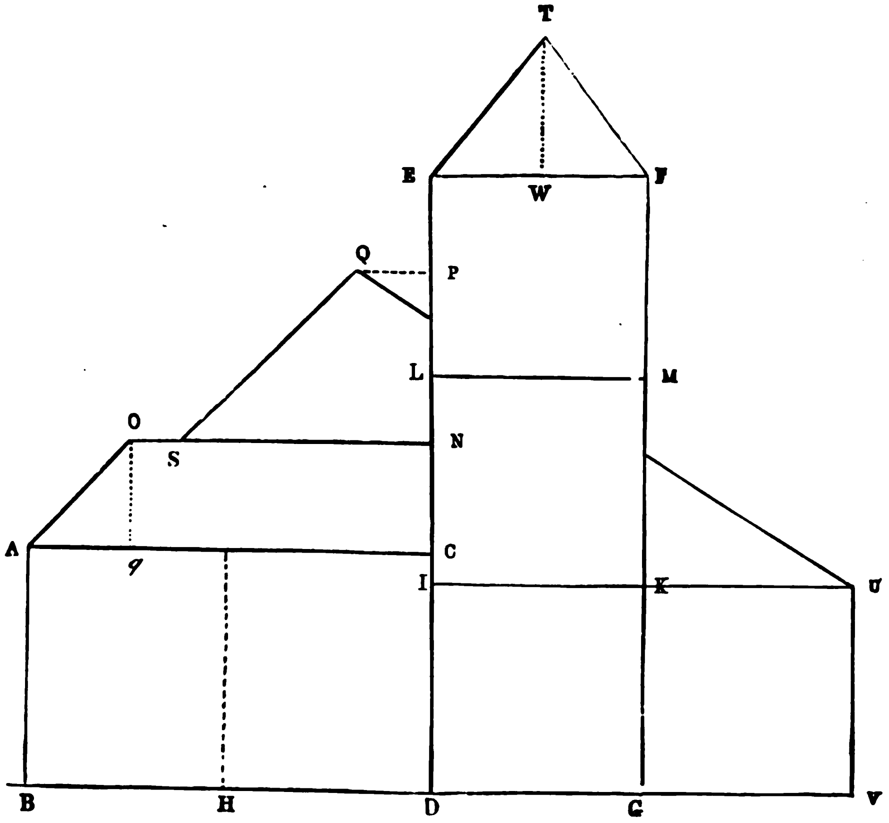


31. **Parallelograms.**—To draw this correctly begin with the large parallelogram **W X** of the proportions of one to two, then produce the line **D B** the same length to **I**; fix the point **G** in relation to **F** and **B**, and complete the parallelogram **Y.** Place the point **K** in its proper position (nearly midway between **A** and **F**), and draw the line **H K**. Produce the base line **B D** to **N**, then fix on the point **L** opposite to **K**, and **M** to the right of it, and complete the parallelogram **Z**, which, though smaller, is of the same shape as the parallelogram **W X.** **P O** may now be readily fixed, and the Lesson completed.

32. This Lesson should be repeated *from memory,* observing the same order of procedure. This exercise of the memory is very essential.

It matters not in drawing this figure whether you make a copy the exact size of the original or not; the point of importance is, that your copy should be a strictly rectangular (right-angled) figure, of the *same proportions* as the original.

LESSON 13.



33. **Parallelograms.**—If your previous Lessons have been well mastered this one will not be very difficult, as it is composed chiefly of parallelograms of simple proportions. After having completed all the parallelograms, the points for **O, Q,** and **T** you may easily find with the aid of the dotted auxiliary lines.

By these Lessons you learn the dependence of one line upon another, and how lines and forms are to be judged of by comparison with, and in relation to, each other. You should be able perfectly to apply this mode of estimating the proportionate length of the sides of an oblong by comparing them with a square, as you will find it of general use in the practice of Art, more especially in the delineation of buildings.

LESSON 14.

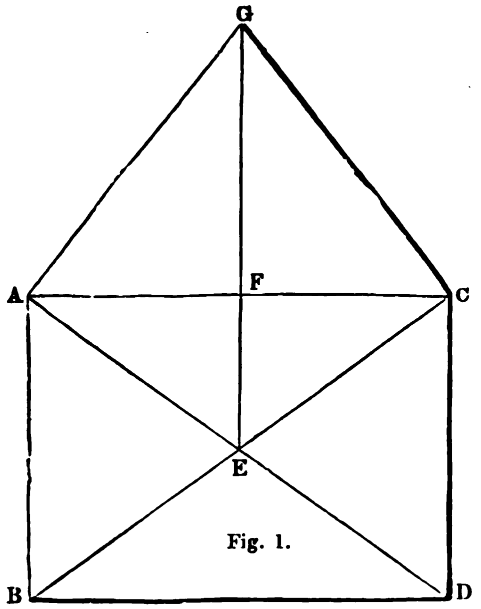


Fig. 1.

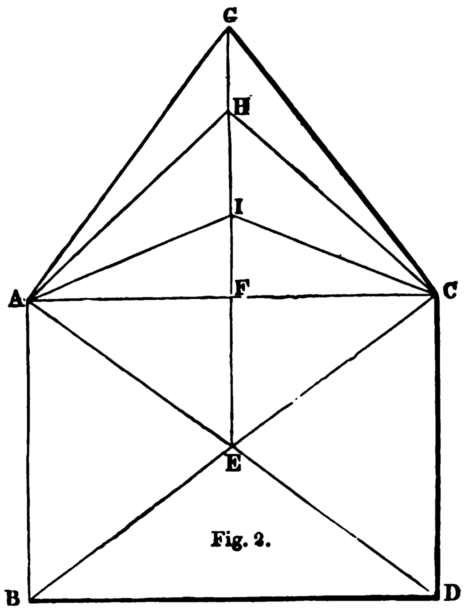
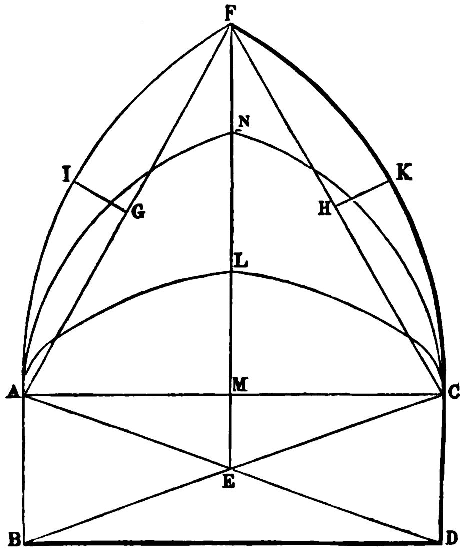


Fig. 2.

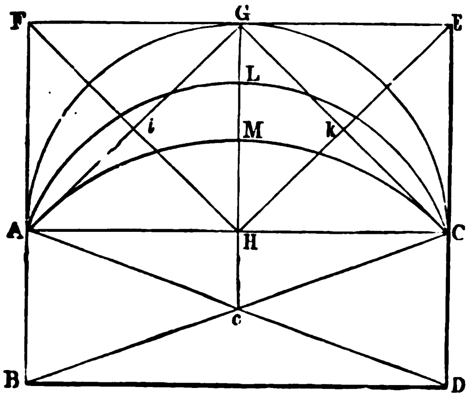
34. **On Gables.**—The form given in this lesson is the gable of a house, composed of two sloping lines, meeting in a point at **G**—such forms, flatter or steeper, are common to Greek temples, to Gothic buildings, and to humble dwellings. You should practise this Lesson by drawing **A B C D** of different sizes but the same proportions as those here given; and after finding the centre by the diagonal lines **A D** and **B C**, add other gables, like **H** and **I**, of different heights, and flatter than the first, taking care to observe the proportions which **H F** and **I F** may bear to **A C**. In the example here given, all these gables are erected on the same base, thus forming one figure; but you must separate them, and draw three figures.

LESSON 15.



35. **The Gothic Arch.**—In this Lesson and several which follow, you will learn how right lines and angles are used as a means for ascertaining the *exact* curvature of curved lines. They are the *only* standard for judging of degrees of curvature, especially when the degree of curvature is small.

36. The parallelogram is nearly three squares, and the height of the perpendicular line **M F** is equal to **A C.** From **F** draw the oblique lines **F A** and **F C**; in the middle of which, at **G** and **H,** set off two short lines at right angles with them, and you will then have the frame-work for drawing the curves. When these are done they must be carefully examined to see that you have made the curves on one side to correspond exactly with their respective curves on the other.



LESSON 16.

37. **The Roman Arch.**—To draw a semicircular arch as seen when standing immediately in front of it:—Upon the lower parallelogram, whose sides are as one to three, place another, whose height is half the length of its base **A C,** and divide it with the line **H G**; this will give two

squares. Intersect these squares by diagonals, and, observing where the arches cross the diagonals, you will be able easily to draw them with considerable accuracy.

Practise this Lesson also on a larger and smaller scale.

LESSON 17.

38. **On Drawing from Nature.***—Set before you on the table a square sheet of card-board or paper, placing first the letter **A** at the top left-hand corner, and **B** at the bottom; letter **C** at the top right-hand corner, and **D** at the bottom, and now attempt to draw it. A moment's reflection will suggest to you that as the boundary of the paper **A C** is farthest away it will appear shorter; and in drawing it, although in reality it may be exactly on the same level as the boundary **B D**, you will have to place it higher in your drawing than **B D**. Further, as the plane of the paper is turned away from you, it will appear narrower from the front line to the back one, than across from **B** to **D**, *i.e.* it is foreshortened. The receding lines **B A** and **D C** will slant inwards and upwards.

39. **Diminution of Distant Objects. Receding Lines.**—From these observations you will learn the following truths :—

1st. That *objects at a distance appear smaller than when near,* and must be so represented.

2nd. That *planes* (surfaces) *look narrower, or are foreshortened as they are turned away from us.*

3rd. That receding lines *below* the eye appear to slant upwards.

If the piece of paper or board were held above the eye (its plane being still horizontal) the same principle will hold good, except that as the plane is *above* the eye, the back line will appear lower than the front line, and the receding lines being *above* the eye, will appear to slant *downwards.*

40. Probably in the room in which you are sitting, the floor, the table, and the ceiling, may afford you illustrations of these laws.

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* Pencil-in-hand measurement is explained on page 30.

LESSON 18.

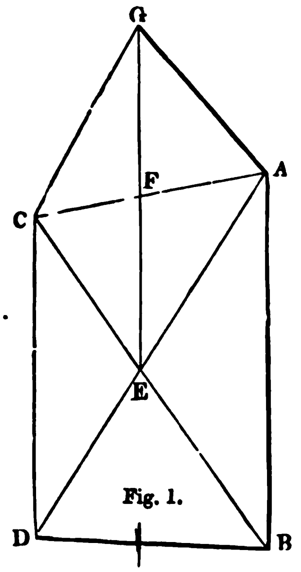


Fig. 1.

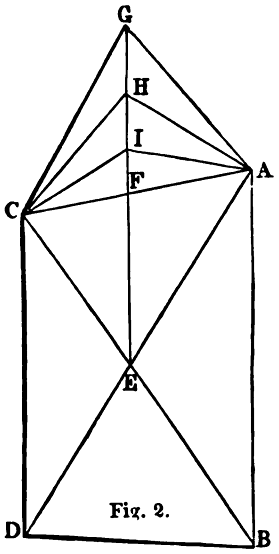
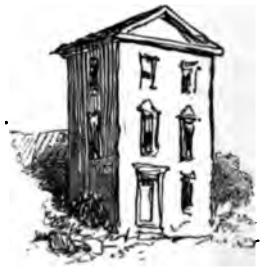


Fig. 2.

41. **Gable seen obliquely.**—To draw a gabled parallelogram when seen obliquely, as in this Lesson, the following truth should be noticed; that the plane **A B C D**, being turned away from the spectator, appears narrower, and the line **C D** shorter, than the length of **A B**. Further, as the receding line **A C** is above the eye it slants downwards, and the receding line **B D** being below the eye, slants upwards: the degree of inclination of these lines must be ascertained by comparison with a horizontal line. The position for the apex of the gable **G** may be found by diagonal lines.

42. To make this Lesson the more intelligible to you, I have here given a drawing of a house of the same form as **A B C D** of your Lesson, but reversed, of which the parapet and the base are, as you would know, perfectly horizontal and parallel: so also are the tops and bases of the windows and door, yet none of them are so represented in the drawing, and thus you have an illustration and an application of what you have been taught in this and the foregoing Lessons.



LESSON 19.

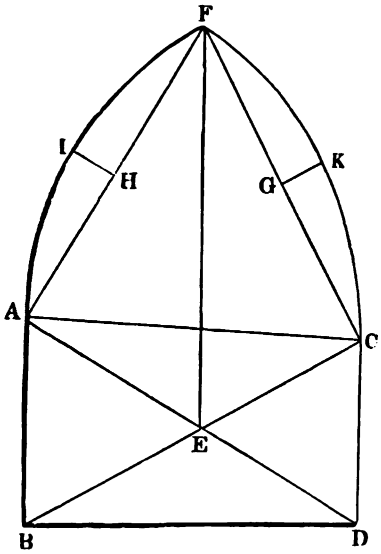


Fig. 1.

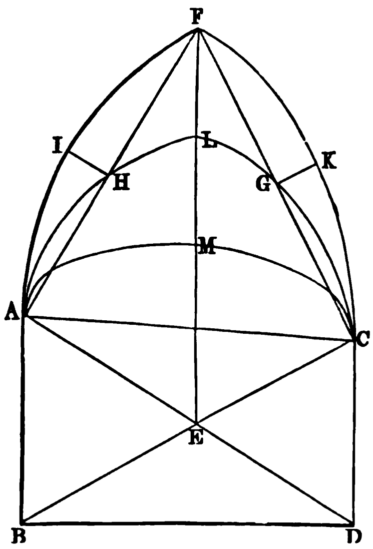


Fig. 2.

43. **Gothic Arch seen obliquely.**—It is most important for you to remember well the observations already made in the previous Lessons; your future success depends on it. Otherwise do not attempt any subsequent Lesson,—it will not advance you a step. Honestly turn back and again study the Lessons.

44. This Lesson you should practise by sloping the line **A C** more than here, and by placing **F** higher and lower, as at **L** and **M** in Fig. 2. Gothic arches differ according to the date of the buildings in which they are found, and have their points at various heights above their springings, which the points **A C** are called.

LESSON 20.

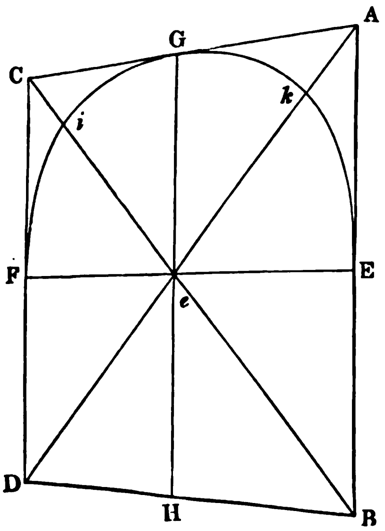


Fig. 1

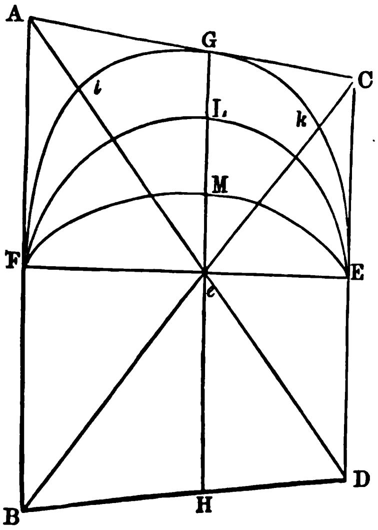
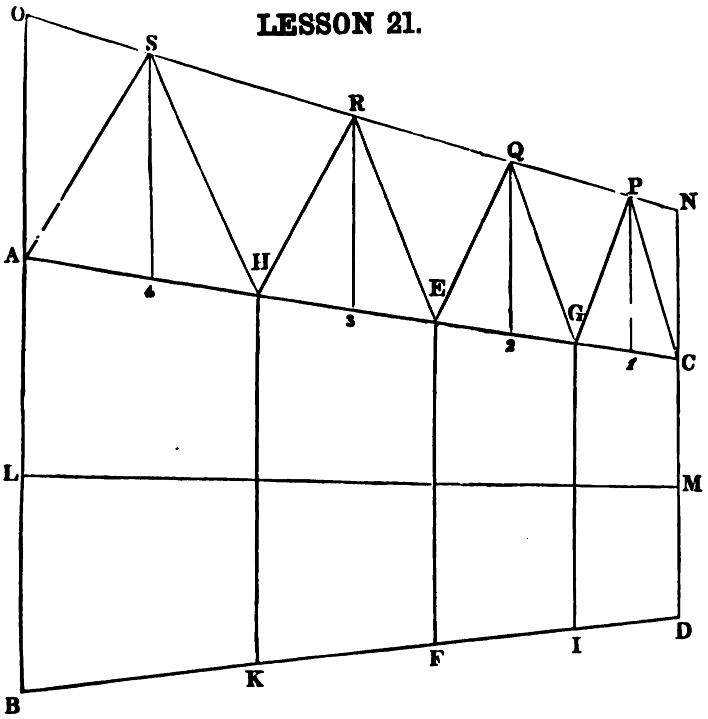


Fig. 2.

45. **Roman Arch seen obliquely.**—This Lesson further illustrates the principles already explained, and should be drawn in strictly logical order, beginning with the front or chief line **A B**. The *exact* points where the semicircular arc ought to cross the diagonal lines may be found by reference to the diagram in Lesson 66.

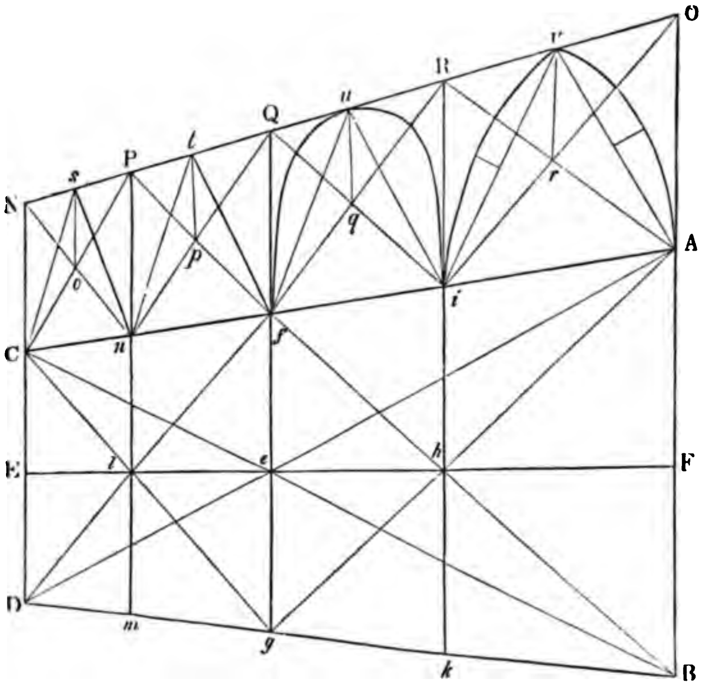
LESSON 21.



46. **Gables seen obliquely.**—This Lesson, an amplification of preceding ones, will be found comparatively easy if you observe the same order of procedure; first, draw the parallelogram **A B C D**; secondly, the line **E F**, remembering that the more distant half will appear narrower or more foreshortened than the nearer one; thirdly, subdivide these halves; upon these you may erect the gables, being careful to place them exactly over the figures **4 3 2 1**.

47. Before you can draw this figure with absolute accuracy you must understand the next Lesson, where you will learn means for executing it with mathematical precision.

LESSON 22.



48. **Gables seen obliquely.**—Although this Lesson may look difficult, it is really easy of accomplishment if you follow the instructions.* Commence, as usual, with the parallelogram **A B C D**, and intersect it with lightly drawn diagonals, and erect the perpendicular line *f g*. Next draw the diagonals **A** *g* and *f* **B**; where they cross at *h* draw another perpendicular *i k;* then the diagonals **C** *g* and **D** *f*, where they cross at *l* draw the perpendicular *m n;* and lastly the line **E F**, through the points *l e h*. By these means you will divide the figure **A B C D**, by the perpendiculars, into four portions, so that each portion will be less in *exact* proportion to its distance. Rub out now all the diagonals, taking great care to preserve the perpendiculars. Measure off **O A** equal to **A F**, and **N C** equal to **C E**; draw **N O**, and extend the other three perpendiculars until they touch **N O** at **P Q R**. Next draw diagonals from **N P Q R** and **O**, to **C** *n f i* and **A**. To draw a Gothic arch in the first and right-hand division, it is only necessary to set up a line from *r* to *v*, and proceed as directed in Lesson 19; and to draw a semicircular arch in the next division to the left, draw the line from *q* to *u*, and proceed as directed in Lesson 20.

What you have now done with rigid accuracy, you should compare with your attempt to draw the last Lesson, which you did by the eye alone, and the necessity for your knowing how to produce it by these more accurate means will be manifest. This figure requires to be very neatly drawn, and when you have drawn it as here directed, you should try it first without the ruler and compasses, and lastly from memory. In any case, it will be better to draw this Lesson to a larger scale. The woodcut shows an application of this lesson.

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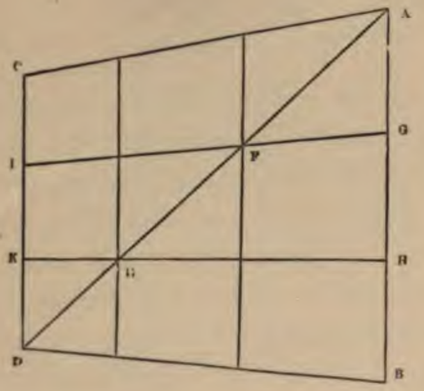
* In the case of young pupils, a ruler may be used.

49. If you require to divide a parallelogram when obliquely seen, into *three* equal upright parts, they may be obtained by the method shown in the diagram below.

Divide **A B** and **C D** into as many equal parts as you desire to divide the whole figure into, and draw the lines **I G** and **K H**. Now draw the diagonal line **A D**, and the intersections at **E** and **F** will give the places for the perpendiculars.



LESSON 23.

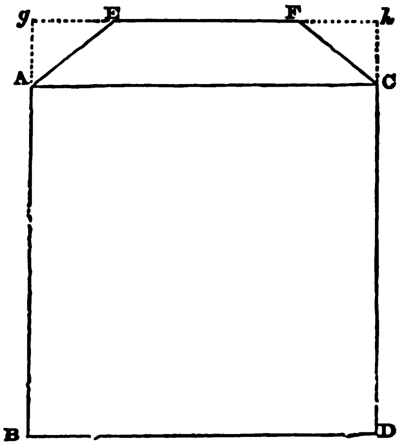
50. **Questions.**—Write out as neatly as you can, and illustrate where necessary, answers to the following questions:—

1. What is a superfice?
2. What is a square? Draw it, and prove that what you have done is correct.
3. May a square be considered a standard figure? and if so, why?
4. What is a parallelogram, and how do you ascertain its proportions?
5. State how you find the middle of a square, and illustrate it.
6. Show that you can divide a parallelogram into four, or into eight equal upright parts.

7. What is a horizontal plane?
8. How is it the purpose of Art to represent objects? as they are, or as we see them?
9. What effect has distance on an object? and on the parts of an object?
10. When is a square said to be seen obliquely? and what form does it then assume?
11. How do right angles appear when seen obliquely?
12. When is a line, or an object, said to be foreshortened?
13. How should a right-angled form be represented when immediately opposite to you?
14. How is the retiring side of an object said to be seen?
15. How are you said to view an object when its apparent form differs from its real form?

LESSON 24. On solids.

51. **The Cube. Parallel View.**—Hitherto your Lessons have consisted entirely of objects having shape without thickness,—that is, they were considered merely as superficies. In the present Lesson the subject is a cube, or solid prism, having six equal sides, and all of them squares, like a dice.* Your study, therefore,



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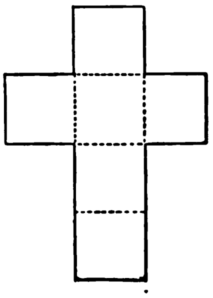
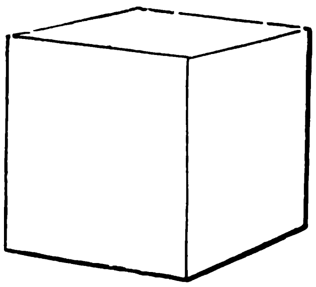
* If you are not in possession of "the models" you should at once provide yourself with a sheet of thick cardboard, and make a cube—the larger the better. It may be made as follows:—Draw and cut out quite accurately six squares, as shown in the diagram, and then cut *partially* through the lines forming the divisions of the squares; neatly fold it, and cement the edges.

A large cube will greatly facilitate and make more practical many of the following Lessons.



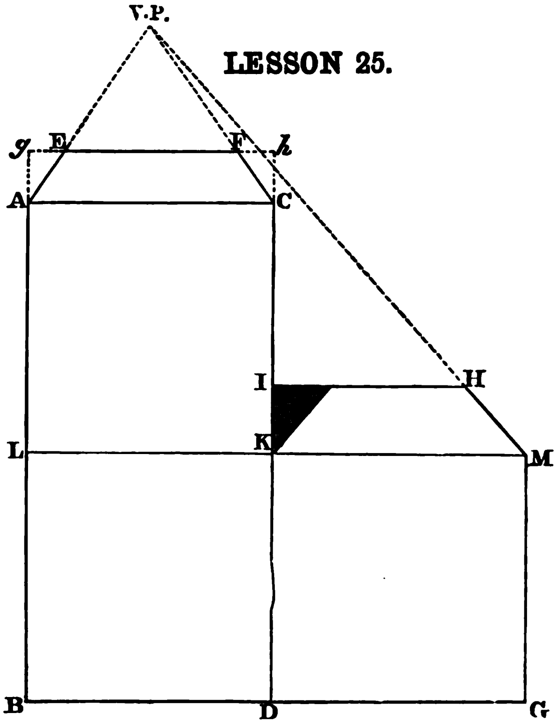
is more advanced. In this and the following Lessons place a cube before you, in order that, by examining it in connexion with your instructions, you may the more readily and the more accurately comprehend them. You must first understand, when looking at this, or at any other solid object in nature, *you can never see it as it really is.* For instance you see, in the cut on the left, a solid object with six equal square sides, and there is no position in which it can be placed, so that you can see more of them at one view than three. It may happen that neither of these sides, although square, can be so represented, because it is not so seen; nevertheless it is truly represented,—that is, although each right angle of the figure in nature is represented, as here by an acute or an obtuse angle, yet we perfectly understand the object to be a solid with square sides, and all the angles right angles. It may also be in a position such as shown above in the present Lesson, so that one side will be seen a perfect square; but if the top be also seen, although in nature equally a square, yet it cannot be so represented, because it is not seen a square. The purpose of Art is to represent objects in a picture or drawing *as we see them in nature*, and *not as they actually are.*



52. This being the case, we must evidently learn first to understand *what* we see, and *how* we see: or, in other words, the eye must be educated through the medium of the intelligence. The purpose of every Lesson set before you, is by degrees to make you so well acquainted with what you will find in nature, and how it may be represented by Art, that finally you may possess the power ably to depict her for yourself. This is to be your ultimate possession.

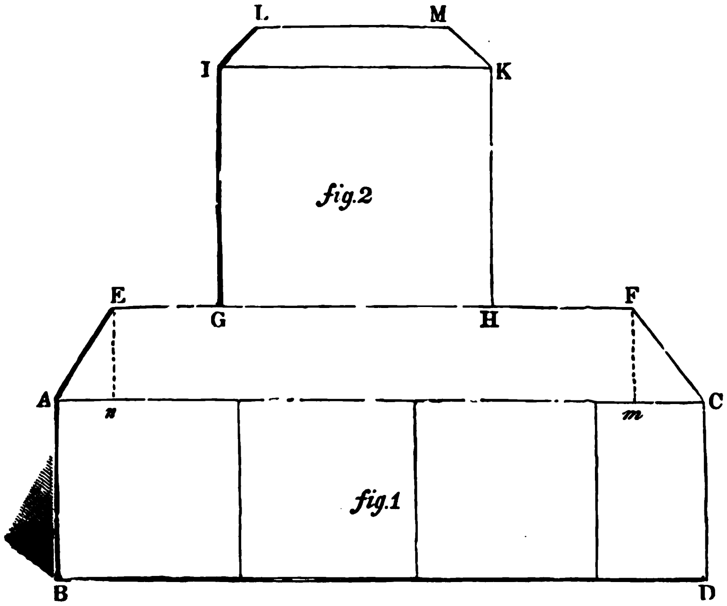
53. This Lesson shows you the appearance which a cube presents when viewed directly in front, and with your eye a little above the level of its upper side. The top plane will appear narrow (foreshortened) from **A C** to **E F**, the line **E F** shorter than **A C**, and the two receding lines will slant upwards and inwards towards each other. Read paragraph (¶) 39.

LESSON 25.



54. **Solid Parallelograms. Vanishing Point.**—If you turn to Lesson 10 you will recognise this figure seen only as a superfice. You have now to represent it as a solid, beginning first by drawing the three front squares; the top square, **A C E F**, is precisely as in the last lesson; the square **K M H I**, however, being more below the eye, will look wider. If what you have done be correct, all the receding lines will converge towards the point, **V.P.** which is on a level with, and opposite to, the eye of the spectator. The point where these receding lines meet is called the *Vanishing Point.* Place your cube or cubes in the like position whilst drawing this figure.

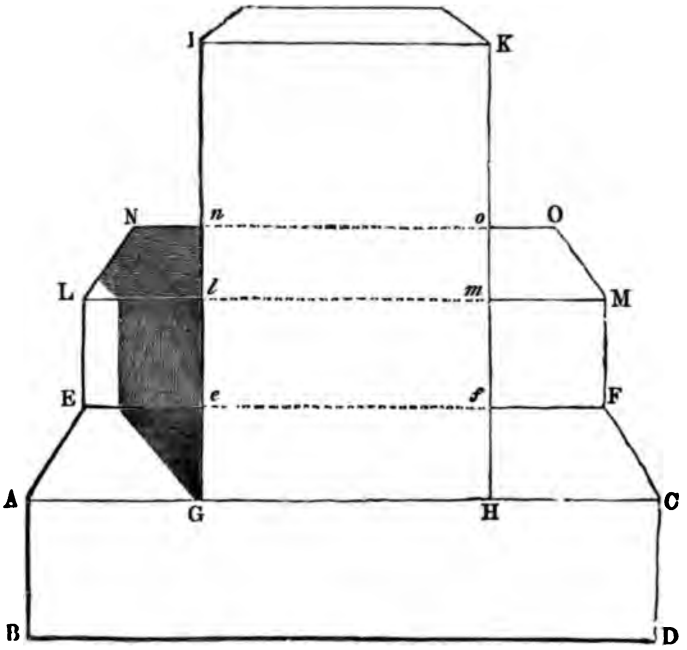
LESSON 26.



55. **Solid Parallelograms.**—The front figure in this Lesson is just as a book would appear to your eye, if placed on a table with its back towards you, supposing the ribs of the binding to be represented by the upright lines between **A B** and **C D**, and to prove to you, that, however dry these and other elementary Lessons may appear, the applications are true, and a book is here drawn, which has the exact form of the figure you are studying.

56. After having drawn the parallelogram **A B C D**, and the foreshortened top **E F**, of right proportions, be careful in fixing the places for **G** and **H** in relation to **E** and **F**. The line **G I** is not quite so long as **G H**. When you have completed your drawing, prove what you have done by extending all the receding lines, **A E**, **C F**, **I L**, and **K M**, they should meet in one point, as at **V.P.** in the last example.

LESSON 27.



57. **Solid Parallelograms.**—This Lesson is composed of two parallelograms, like Fig. 1 of the preceding Lesson; but of different proportions, and placed one above the other, like steps when viewed in front. Fig. 2 of the last Lesson is also brought forward, and placed on the front step. Be sure that the lower step, when done is correct as 1 to 4½ squares. Whilst drawing this and the one above pay no attention to the upright object on the steps, but draw all the horizontal lines of the steps through, as you see they are drawn in the example.

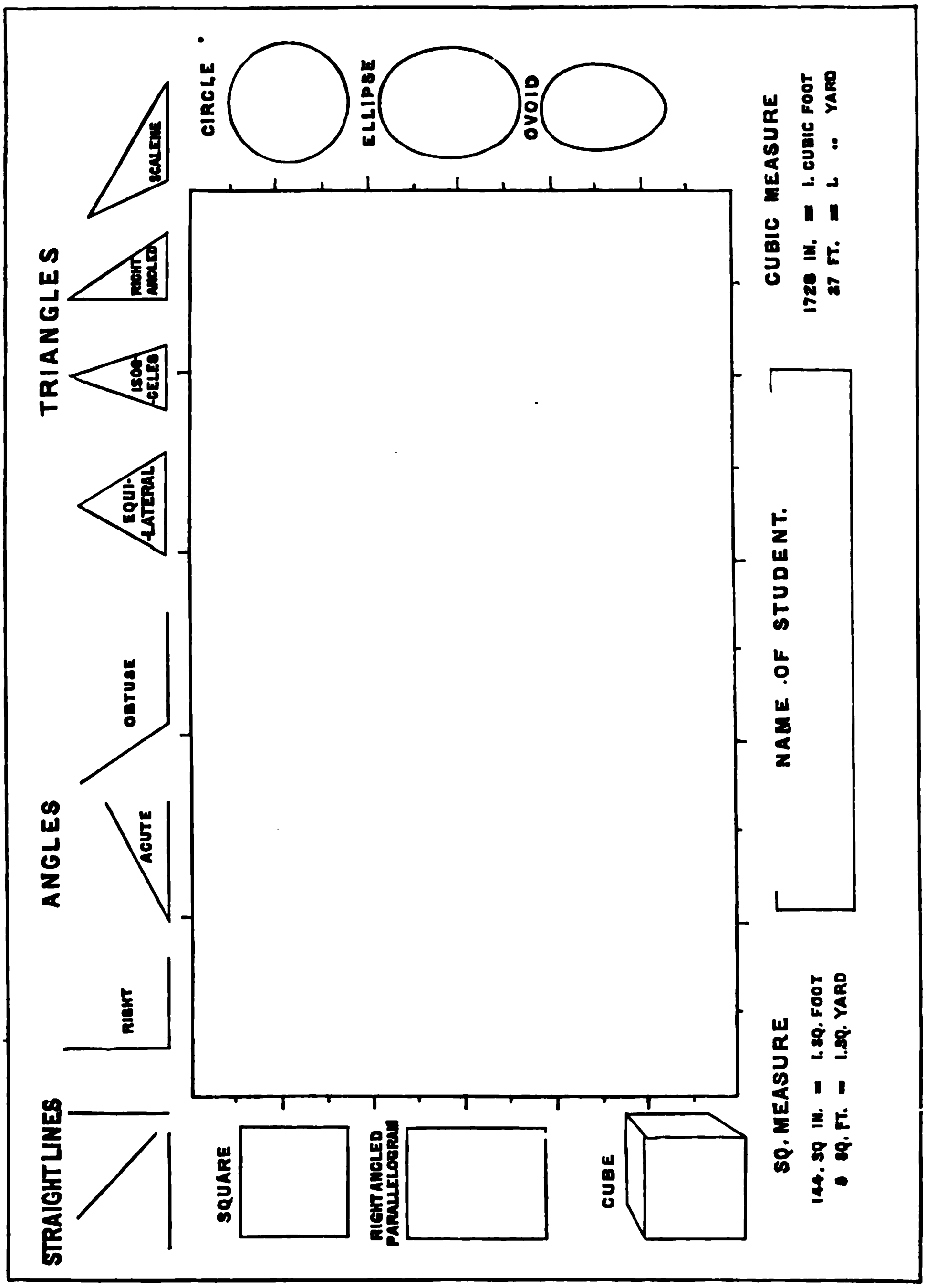
58. When the drawing is completed, rub out the lines *n o*, *l m*, *e f*, and extend all the receding lines as before; and if they meet in a point above the line **I K** they are truly drawn.

LESSON 28.

Questions.—1. Explain the difference between a superfice and a solid.
2. What is a cube?
3. When is an object said to be parallel to you?
4. What is meant by "a vanishing point?"
5. When is an object said to be foreshortened?

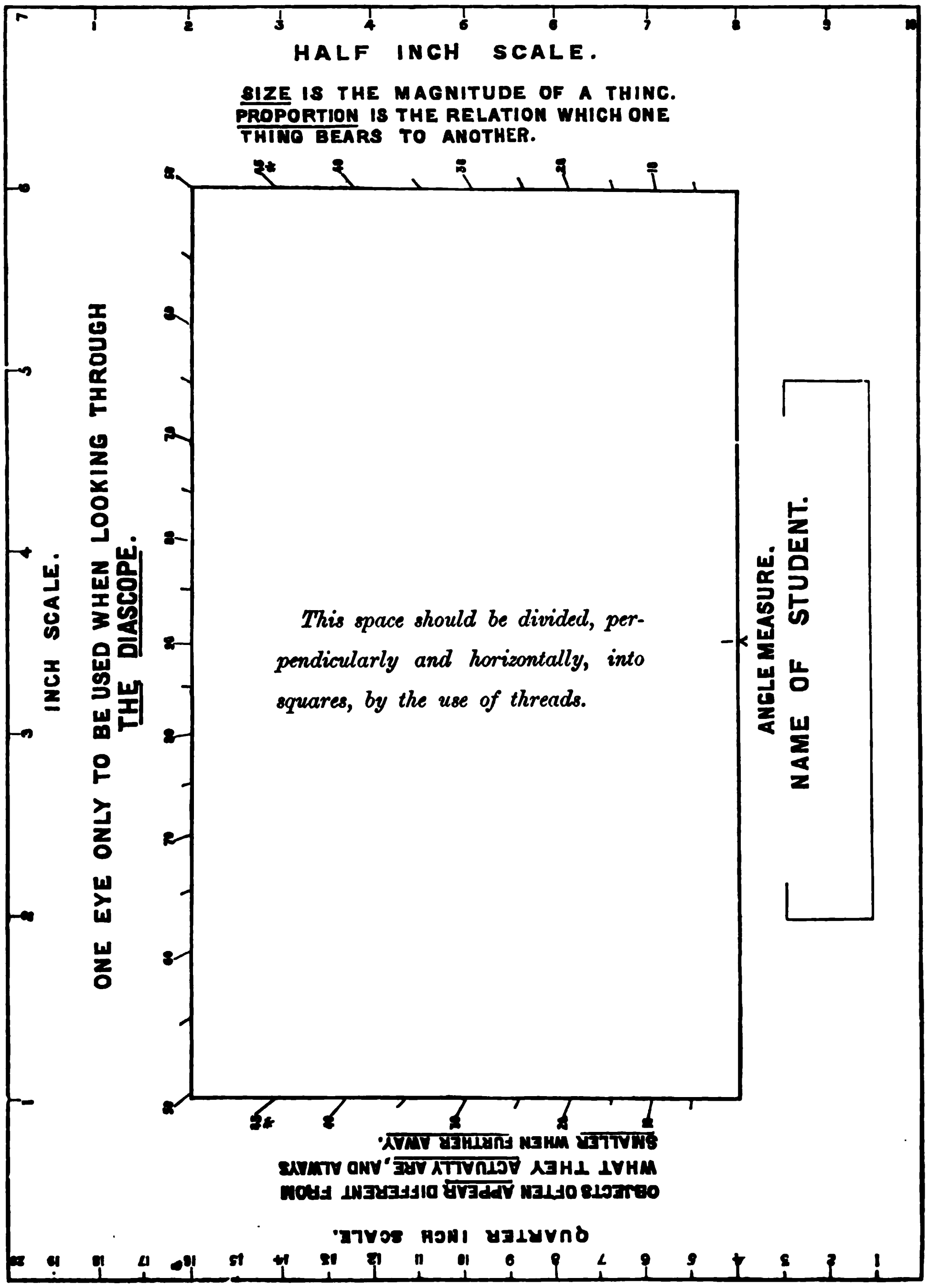
59. **Importance of Earnest Study.**—In this, the first Section of the Lessons on Art, are set before you the means for accomplishing every Lesson in the succeeding Numbers. With this you should be perfectly familiar, and able to execute every example with neatness and certainty before you enter on those contained in the

THE DIASCOPE.



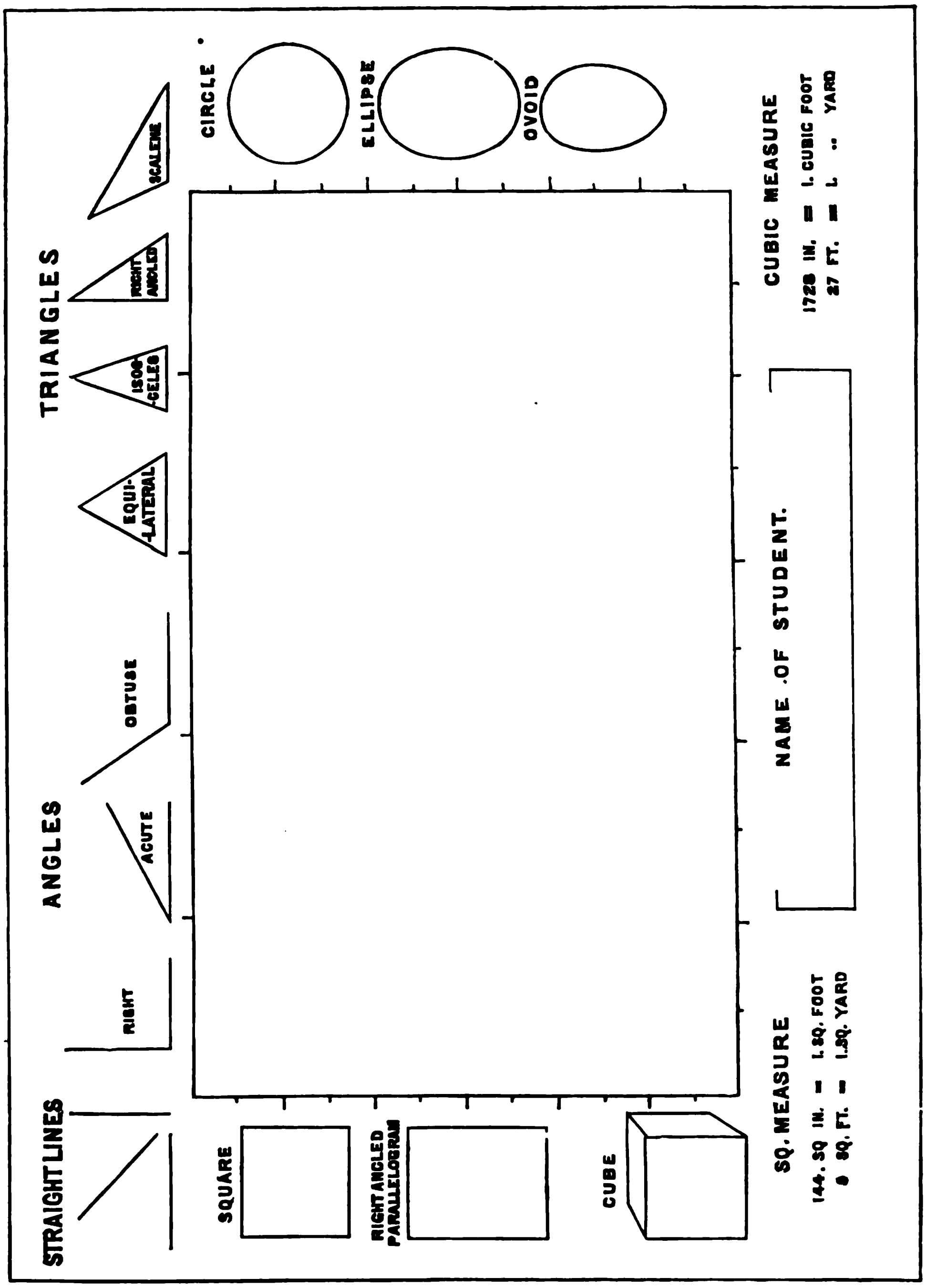
The *purpose* of the Diascope is explained on page 6C*.

THE DIASCOPE.


HALF INCH SCALE.
SIZE IS THE MAGNITUDE OF A THING.
PROPORTION IS THE RELATION WHICH ONE THING BEARS TO ANOTHER.
INCH SCALE.
ONE EYE ONLY TO BE USED WHEN LOOKING THROUGH THE DIASCOPE.
This space should be divided, perpendicularly and horizontally, into squares, by the use of threads.
ANGLE MEASURE.
NAME OF STUDENT.
OBJECTS OFTEN APPEAR DIFFERENT FROM WHAT THEY ACTUALLY ARE, AND ALWAYS SMALLER WHEN FURTHER AWAY.
QUARTER INCH SCALE.

The *purpose* of the Diascope is explained on page 60*.

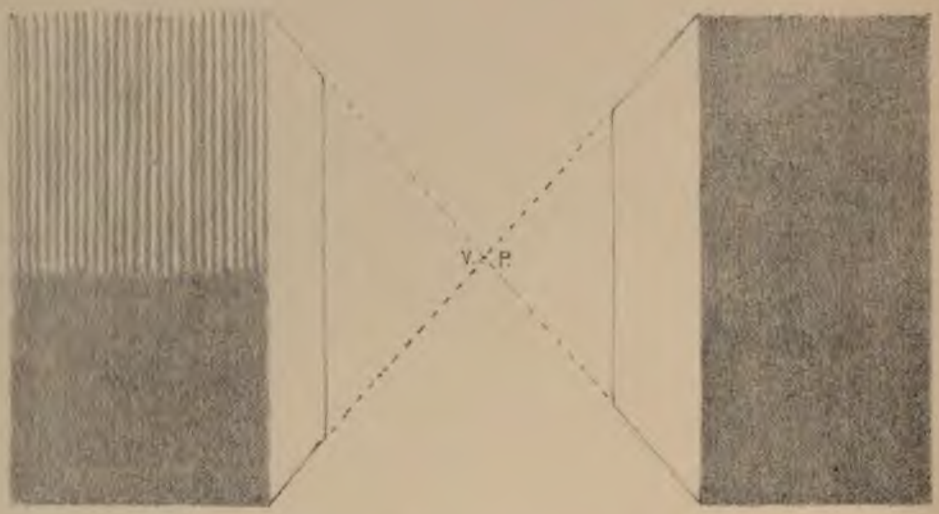
THE DIASCOPE.



The *purpose* of the Diascope is explained on page 6C*.

PLATE I.

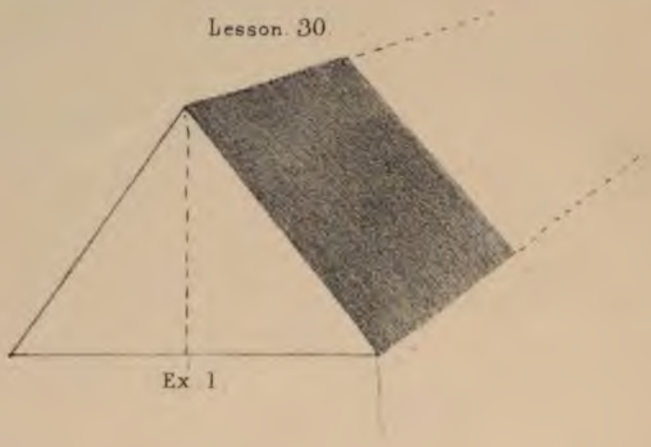
Lesson 29



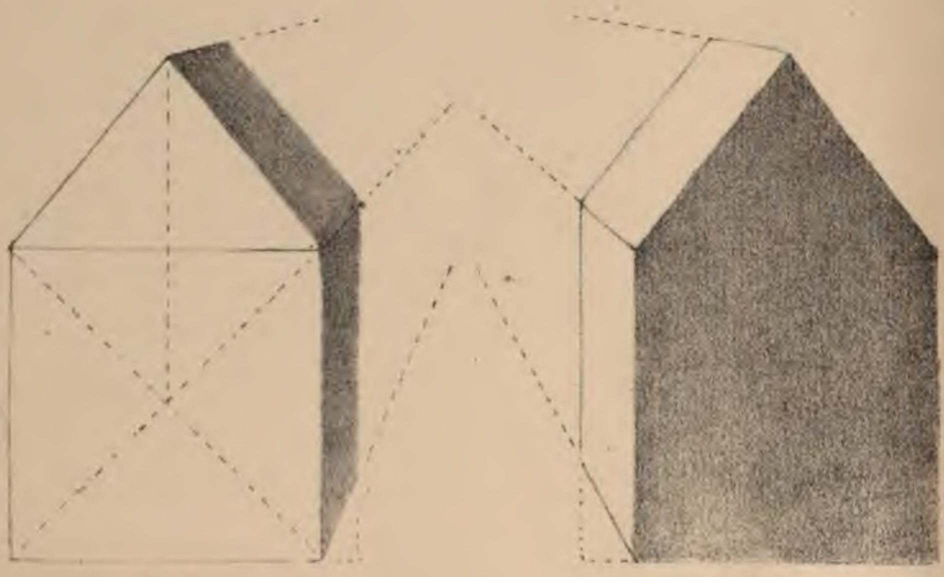
Ex 1

Ex 2

Lesson 30



Ex 1



Ex 2

Ex 3.

SECTION II.

LESSON 29.

61. **The Work to be done.**—The lessons in the first Section, with but few exceptions, treated of the superficies of objects, and these were always executed in outline The Lessons in this Number will represent objects as solids, with their light and shade. The most correct outline always requires shade to convey to the mind a complete idea of the solidity of the object it represents; but the first great essential is always to obtain *a correct outline.*

62. **On Memory Drawing.**—The practice of drawing from memory almost every Lesson is attended by many advantages, too important to be overlooked. It at once shows whether you have really learned each Lesson, or merely copied it mechanically, and enables your teacher to judge whether you should repeat the Lesson, or proceed to the next.

63. **On Shade.**—The general remarks which you have at present to bear in mind regarding shade are,—that it is produced by a repetition of lines either perpendicular, horizontal, or oblique, according to the direction of the surface to be shaded.

64. **Nature of Shade.**—In all cases shade, as seen in nature, whatever its depth, is of an *even* colour throughout, as in Example 2; if it be found darker in one part than another, the increase in its depth is *gradual* from the lighter part—never sudden.

65. **How to Produce Evenness.**—To produce this requisite evenness, the lines with which you shade must be all of the same strength, equally separate from each other, and soft, as in Example 1, and the pencil must be held firmly in the hand. Be careful to lean as equally as possible on each line.

66. The whole mass of shade, though done with great care, will not be perfectly even; the lighter and white spaces between the lines must afterwards be filled up by other perpendicular lines, and with a harder pencil, having a fine point. It is this

perfect [illegible] [illegible] the [illegible] [illegible]. If you should make any small [illegible] [illegible] [illegible] may be removed by [illegible] a small piece of bread [illegible] between the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] small piece of [illegible] [illegible] [illegible] [illegible] are seen. This [illegible] [illegible] [illegible] after one or two efforts. [illegible] attention [illegible] [illegible] [illegible] [illegible] [illegible].

LESSON II.

7. **In Drawing and Shading Solids. Parallel View.**—In each of these three examples you should proceed in the following order:—first draw the front part of the figure which is parallel to you; then proceed to discover the point towards which the receding lines tend, and produce them towards such point; afterwards accurately place the back lines and draw them parallel to the front lines.

8. The shading, whatever be the direction of lines used, must be made perfectly even. Do not on any account proceed to the next Lesson till this is completely mastered.

LESSON III.

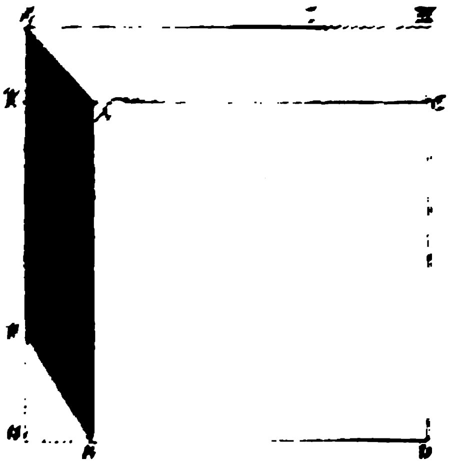


Fig. 1

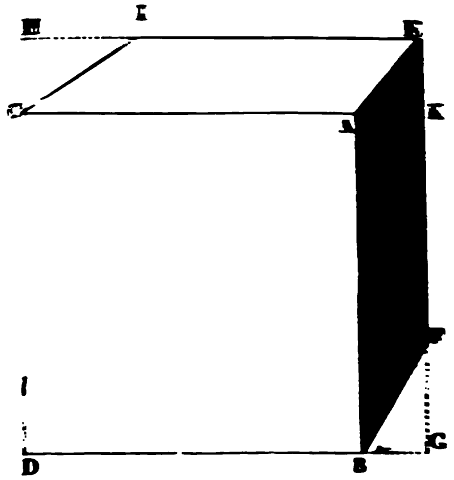


Fig. 2

9. **The Cube. Parallel View.**—The student should have a cube (the larger the better) to set before him till he sees it in the form of the example, and then draw from it instead of drawing from the example. If he should have any difficulty in observing the apparent shape of the retiring sides, he should cover one eye with his hand, or use a 'Diascope' (see pages 30*, 31+, and 60*).

LESSON 32.

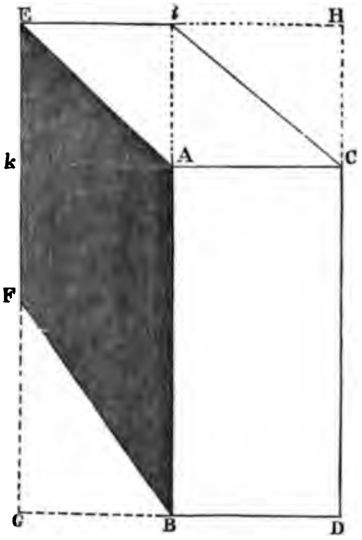


Fig. 1.

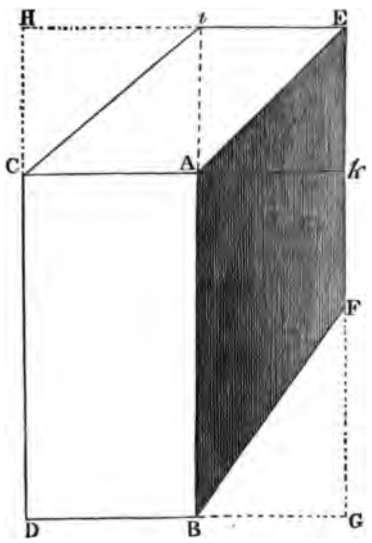


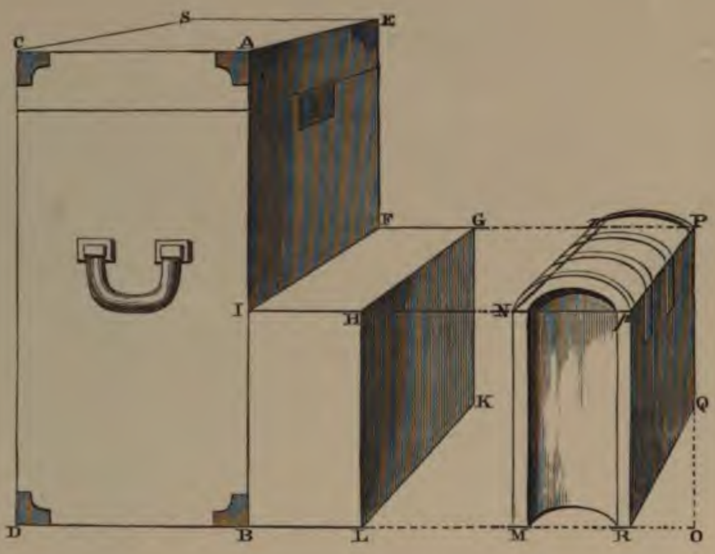
Fig. 2.

70. **Solid Parallelograms.**—Begin this Lesson by drawing the figure **A B C D**, and complete it by the auxiliary lines. Prove what you have done by extending the receding lines; they should all meet in one point.

71. **Remarks on the Woodcuts.**—Several of these lessons are illustrated by woodcuts, in which the shades are represented by narrower lines than could be easily produced from the chalk or pencil; but it is not necessary that they should be imitated. All that is required is, to take notice of the depth of the shade, the direction of the lines, and, above all, *to make the shade even.*

LESSON 33.

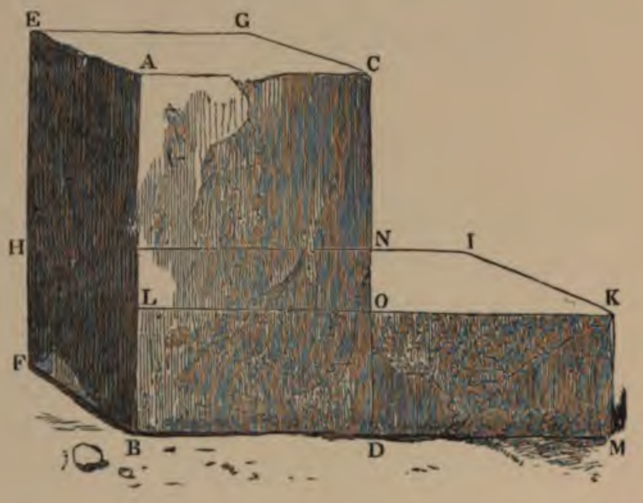
72. **Solid Parallelograms.**—Draw first the parallelograms **A B C D** and **I *p* R B**, intersecting the latter for the fronts of the block and book. You will thus have prepared the front squares or parallelograms. Now note very carefully the slant of the lines **C S** and **R Q**, and extend them till they meet in the vanishing point to the right and above. It is important that these two lines be accurately drawn, as all the other receding lines depend upon them. From **A I H L N *p*** respectively, rule lines to the vanishing point. Now from **A** decide the length of **A E**, which



will determine the width of all the back lines:—these must be drawn parallel to their respective front lines, **E F**, **F P**, &c.

73. When you have performed this Lesson from the example, set up models; or, if you do not possess them, set up books or boxes in like positions, and try to draw them; you will be thus drawing from nature, and testing your acquirements.

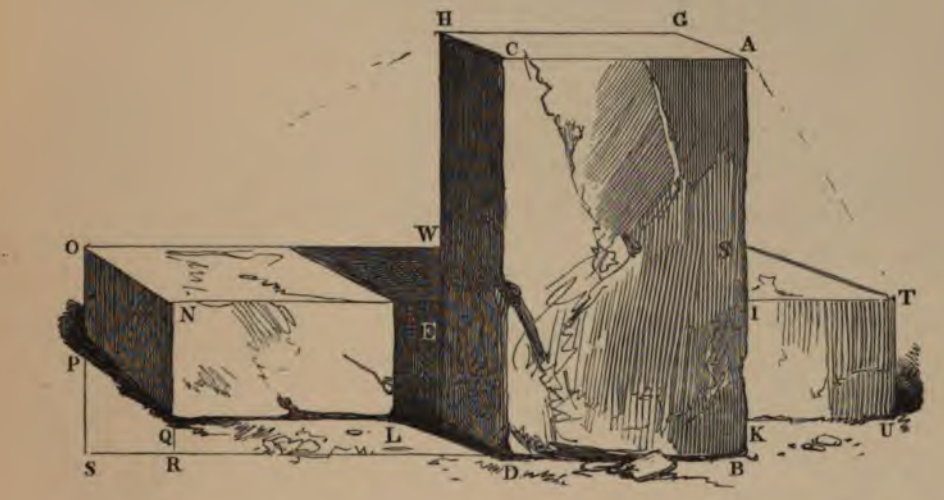
LESSON 34.



74. First draw the front of the upright stone and of the small one to the right of it; then note carefully the slant of the receding lines **B F** and **A E**, which must be extended till they meet in the vanishing point (V.P.). Now rule from **C** and **K** to the same point, and draw the back lines **G E F** and **N I** at their proper distances from the front lines.

75. Copy this and the two following Lessons rather larger than the example, preserving their *proportions* rigidly; afterwards draw them from models.

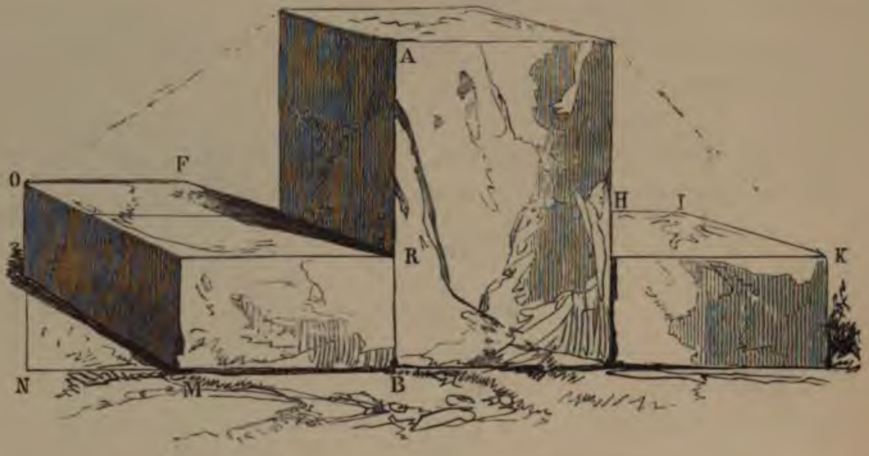
LESSON 35.



76. *Complete first the front stone* taking care that the receding lines from **A, C,** and **D,** all tend to the vanishing point, which is above and to the left of the drawing; then draw **L H G.** Now proceed with the stone lying behind, drawing **Q L U T N,** and from **Q N,** and **T** rule the receding lines to the same vanishing point. Lastly, draw the back lines **O P** and **O W,** thus completing the outline of the figure, which must now be neatly shaded.

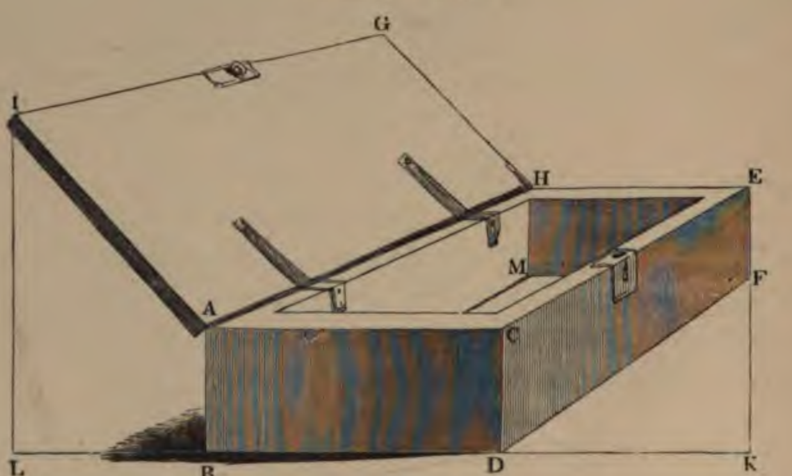
77. In doing this, you must observe that all the perpendicular edges are made irregular, and also that the lines on the perpendicular surfaces have various inclinations, in order to characterise the irregularity of those surfaces. The unevenness of the ground also must be noticed, which adds to the irregularity of the base lines of both the stones lying on it. These observations equally apply to the following Lesson.

LESSON 36.



78. As in the preceding Lessons draw the front faces of the three stones, and in finishing, see that all the receding lines tend towards the vanishing point, a little above, and considerably to the left of the drawing. Be careful in fixing the distances of the back lines.

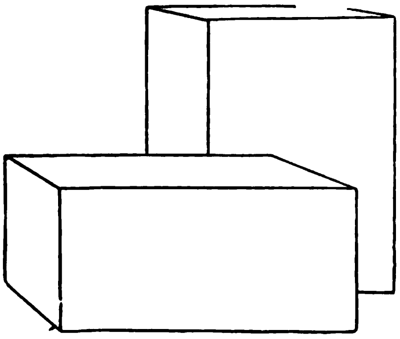
LESSON 37.

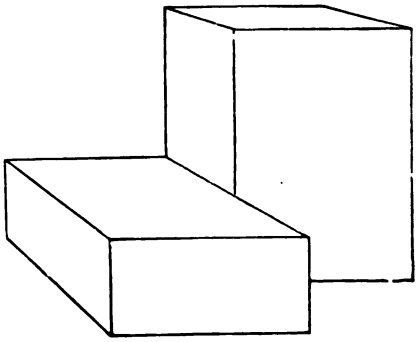


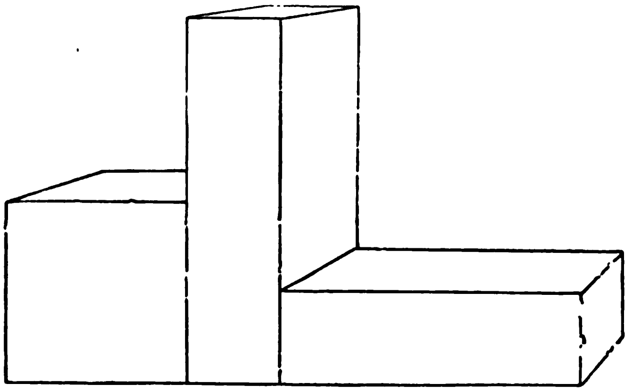
79. This figure is more complicated than the preceding one, and will serve to show you the importance of the previous instructions. Draw the parallelogram **A B C D** (observing accurately its proportions, two squares and a half), and the end of the lid **A I** by the auxiliary lines **B L I**, making **A I** equal to **A C**. By means of the

lines **D K F** fix the point **F**, and draw the line **D F**, extending it indefinitely. You will have observed in previous lessons that by extending accurately any two receding lines until they meet, you obtain the vanishing point (hereafter marked V.P.) towards which all the receding lines should tend. Therefore now produce the line **I G** till it meets the indefinite line **D F**, which will give the V.P., towards which draw from **A** and **C**. Then draw **F E**, **E H**, **H G**, parallel to their respective front lines; put in neatly the inner lines for the thickness of the box, then the hinges, &c. Note that **H M** is shorter than the outside line **E F**. You may now shade the drawing, and afterwards copy a box from nature in a similar position.

Teacher's Note.—In order that the student be familiar with, and fully understand, Light and Shade, as applied to cubical forms, three woodcuts are here introduced, which should be sketched considerably larger than the copy and then shaded, according to the instructions given in previous lessons; or they may be drawn on the black-board by the Teacher and copied therefrom by the Student. In the first, the light may be represented as coming from the left.

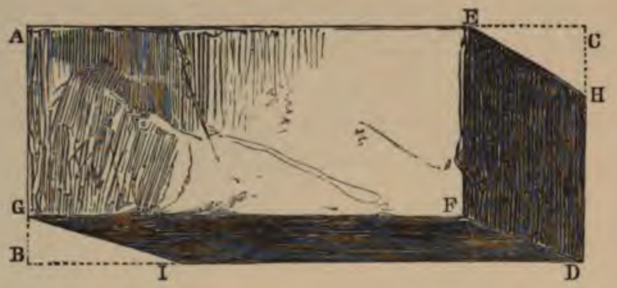






80. Having first determined the point from which the light shall fall, the student should consider on what parts the shades and shadows respectively will be.

LESSON 38.



81. This Lesson is intended to show how to draw a right-angled solid when it is *above* the eye, and you see the under surface. The lines of the retreating sides, and of the underneath parts, now slope *downwards* towards the V.P., which is below, and considerably to the right of the drawing.

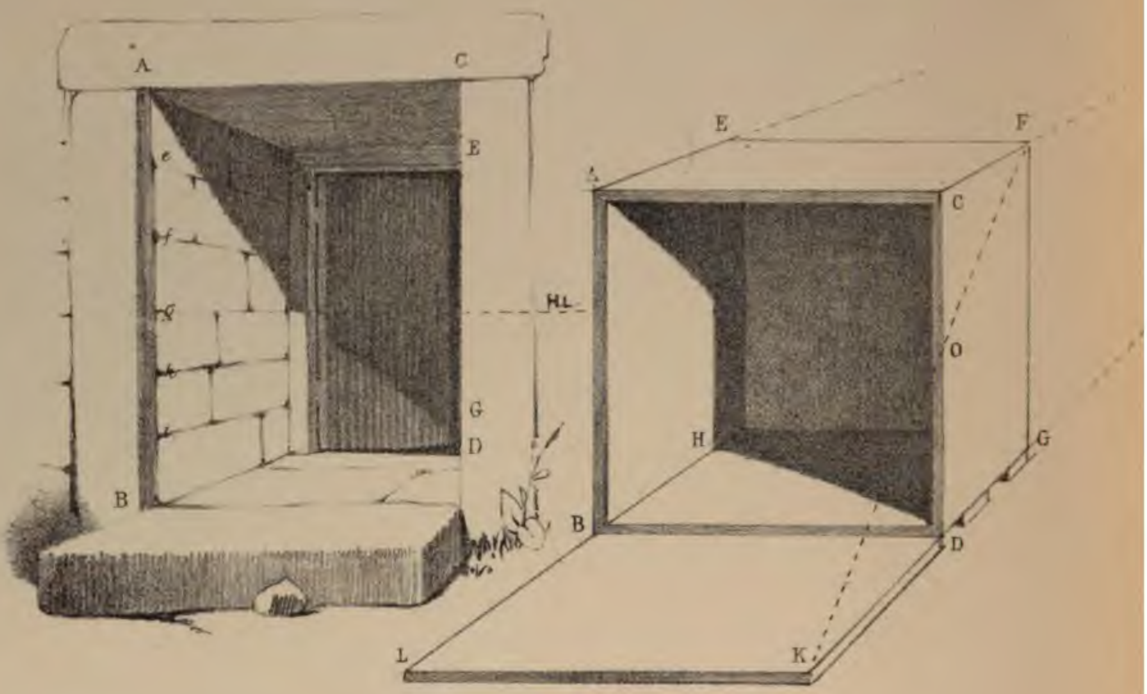
LESSON 39.

82. In this doorway first draw the parallelogram **A B C D.** To the right of this on the H. L. is the V. P., towards which lines from **A** *e f g h i* **B** must be drawn; then draw the inner door-frame, observing its size at **E** and **G**, after which the smaller details may readily be added. Over doorways it is common to put one single stone, called a lintel, as **A C**, in order to support the weight of the building above it, and down each side upright stones, called jambs. The shade must be kept perfectly even. Repeat this Lesson from memory.

LESSON 40.

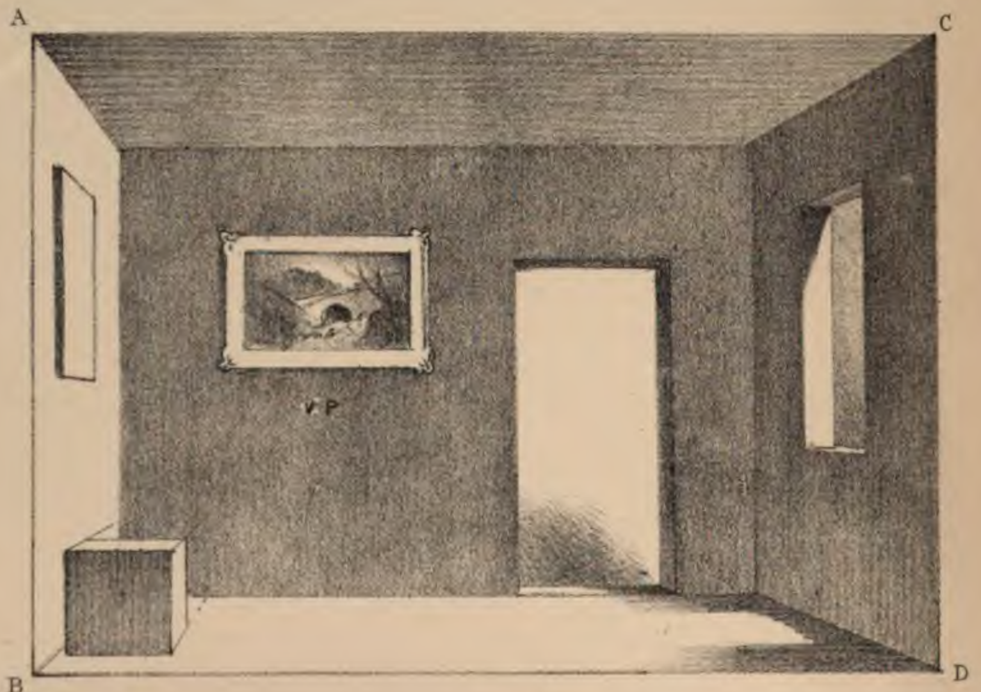
83. Draw **A B C D**, and the inner lines showing the thickness of the material composing the box; then fix the V. P. to the right and above, towards which draw from **A**, **B**, **C** and **D**; then draw **E F G** for the back lines. Next draw the inside lines, allowing for the thickness of the box. The lid, which is represented as towards us, may be found by extending **H B** and **G D** indefinitely forwards, and then drawing an oblique line from **F** through **O** (the middle of **C D**) till it intersects the extension of **G D** at **K**, from which point draw a horizontal line **K L** for the front edge of the lid. Draw a tea-chest or a similar box from nature.

PLATE. 2



Lesson. 39.

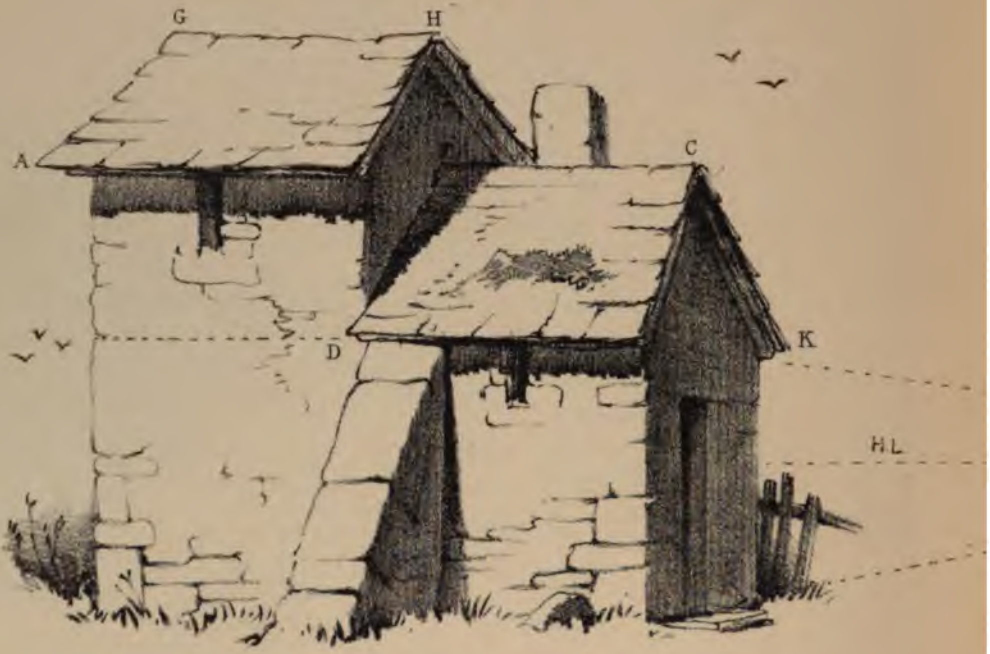
Lesson. 40.

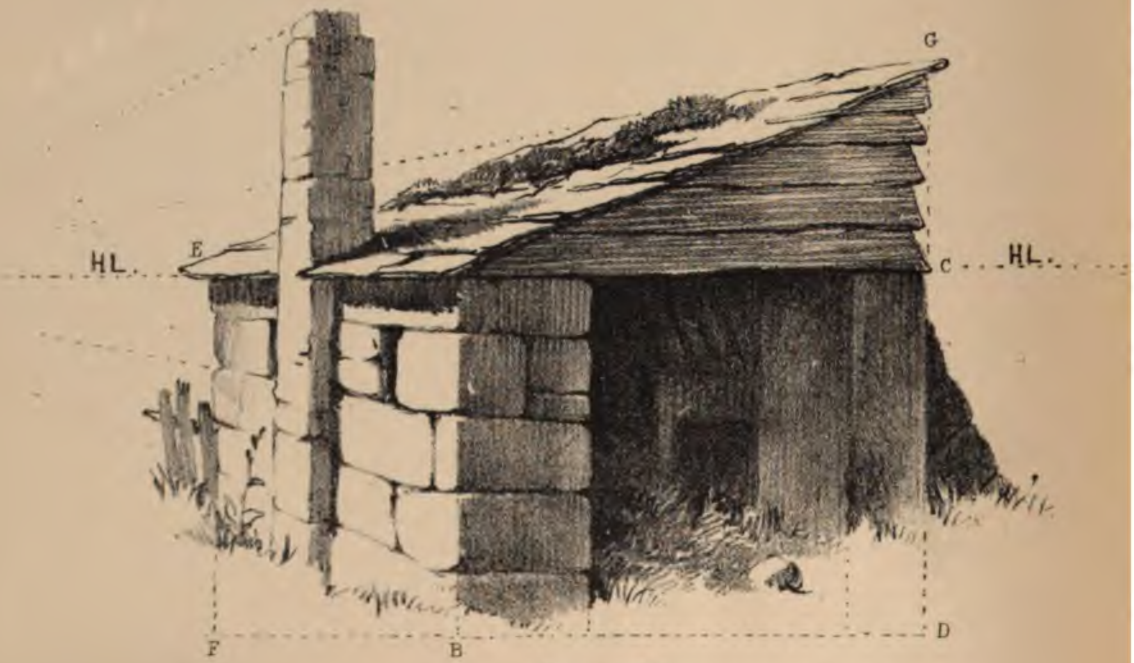


Lesson 41.

PLATE 3.

Lesson 42.





Lesson 43

LESSON 41.

84. We have again a parallelogram **A B C D**. The V.P. in this case is in the room below the picture, and towards it all receding lines must be drawn. The width of one side of the room should be carefully fixed, as by it you may determine the width of the remaining side, and top, and bottom. In shading, observe the direction of the lines of shade, the degree of darkness, and the perfect evenness.

LESSON 42.

85. This consists of two solids, placed side by side, having a buttress against, and two roofs upon them, which form them into a building.

86. You should now be able to draw the solid objects without reference to the previous Lessons. When these solids are done, set up the gable, and observe carefully the positions of **G H F C**. The edges **G H** and **F C** being further away, must be shorter than **A B** and **D I**. The eaves or lower edges of the roofs must project well over at **A B D I** and **K**.

87. In completing this drawing, note that the shades are light (comparatively), and the shadows being near the objects casting them, are dark and well defined at their edges. The markings or divisions between the stones must be put in with clearness and decision. The birds must each be carefully copied.

LESSON 43.

88. This subject affords further opportunity of sketching and shading simple forms, such as may be constructed with the models. It may be readily accomplished by securing the principal lines **A B**, **G C D** and **E F**, together with 'the H.L.'* passing through **E A** and **C**. The divisions between the stones, and boards, and slates, must be carefully expressed.

LESSON 44.

89. A glance at the woodcut will show you that this Lesson is composed of a cube divided into two equal upright parts at **B D**, and that with the addition

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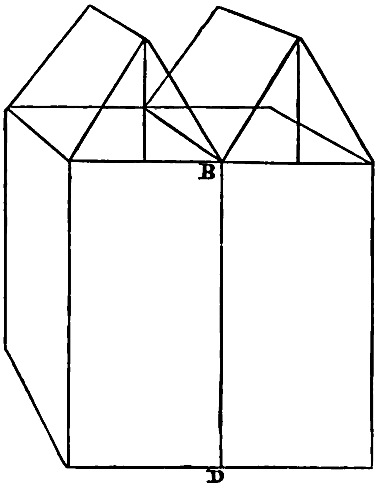
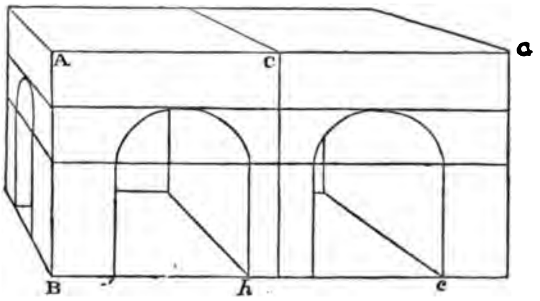
* 'The Horizontal Line,' always level with the eye.

of a roof and other features, it has assumed the character of a building. In the woodcut we are supposed to be above it, and to the left side, as all the receding lines incline in that direction; whilst in the lithographic drawing the vanishing point is to the right, and level with the middle; the upper retiring lines slanting downwards, and the lower ones upwards. The lines must have expression and emphasis given to them in various parts, especially on the light side, where the stones show so clearly. Be careful to preserve the evenness of shade, the intensity and variety of the shadows: the small piece of tree on the side of the building and the birds must be carefully copied.



This Lesson should be drawn from memory.

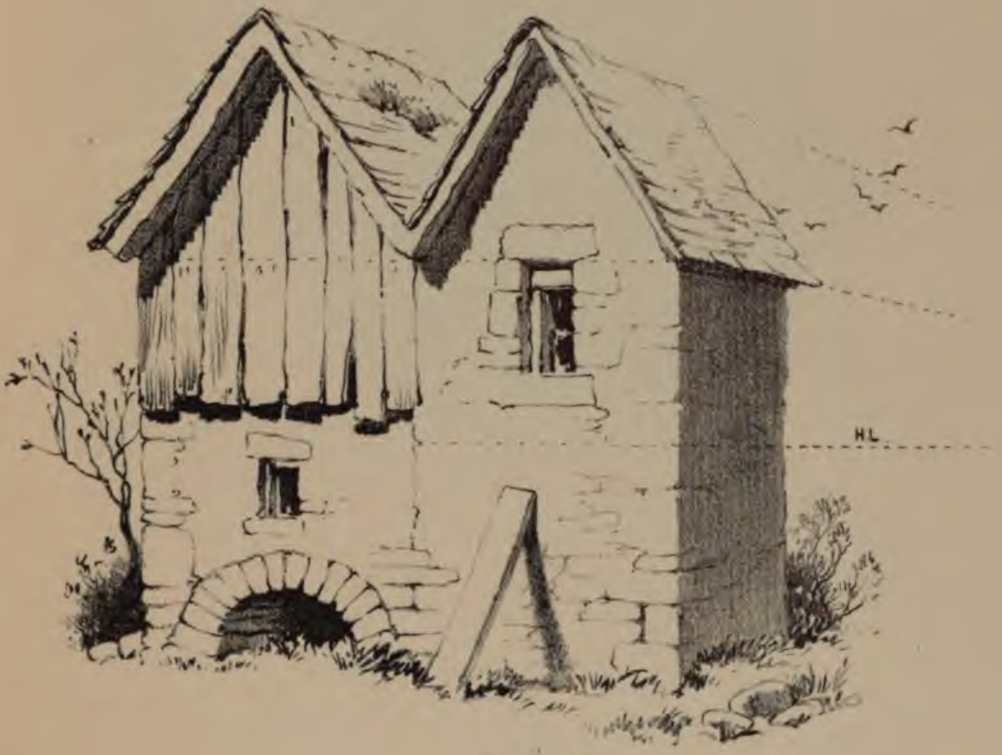
LESSON 45.



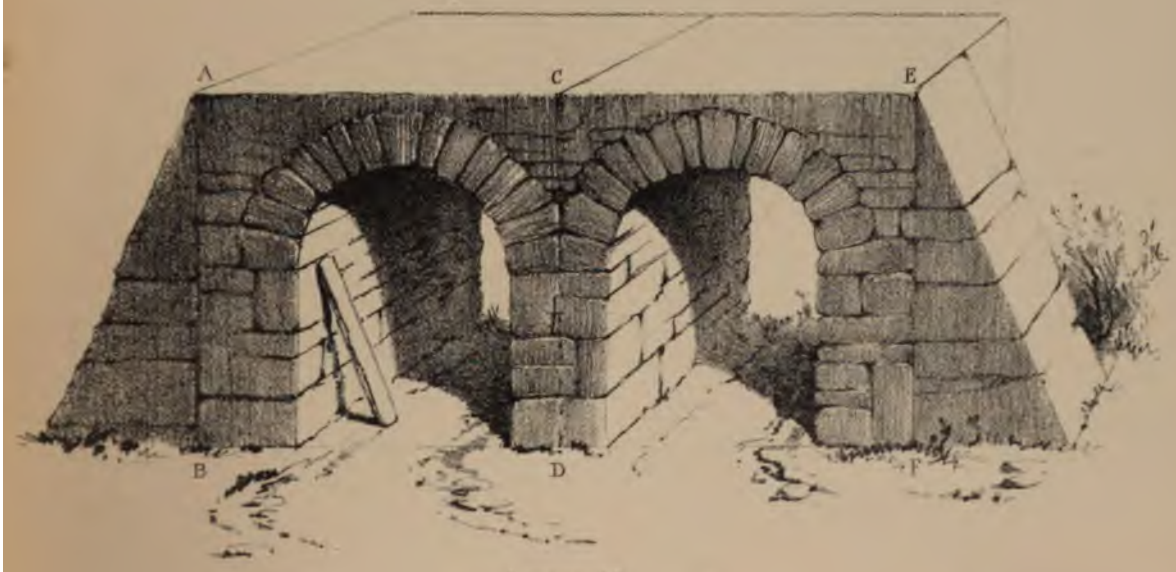
90. This woodcut is composed of two cubes, such as you have already drawn in Lesson 31; and you will do well to draw them as though they were transparent, always remembering to commence with the large and definite parts first. The V.P. is to the left and above, towards which the lines from **A, B, &c.** will recede.

91. When you have completed your drawing from the woodcut, proceed to copy the lithographic example. Be especially careful to observe that the divisions

PLATE. 4.

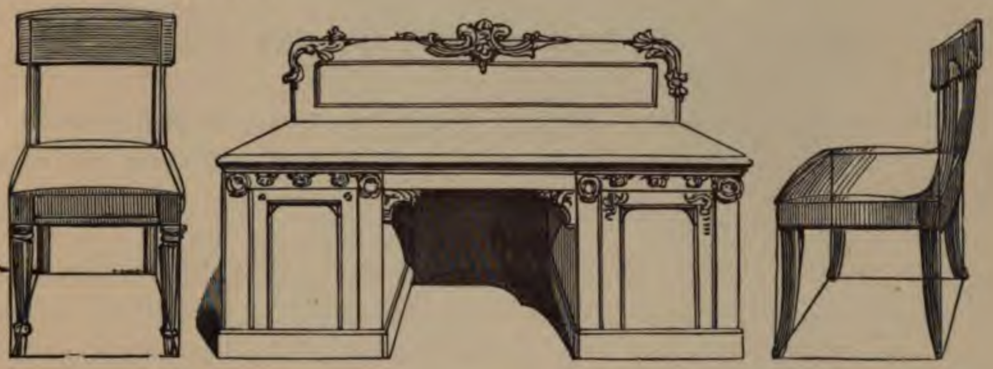


Lesson 44.



Lesson 45.

between the stones round the Roman arches converge towards the centre. Subjoined are further examples of cubical forms, such as should now be drawn from nature on a larger scale.

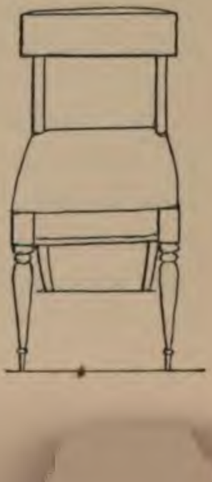


LESSON 46.

Questions :—

1. What is the purpose of drawing from memory?
2. How is shade usually produced, and what is its principal essential?
3. Explain what is meant by a 'parallel view' of an object.
4. What is a 'vanishing point'? and where, in a parallel view of an object, is it placed
5. How do the horizontal lines of the retreating sides of a right-angled solid appear to slope when they are *above* the eye? and how when they are *below* it?
6. How should a right-angled form be represented when immediately opposite to you?
7. How is the retiring side of an object said to be seen?
8. When sketching an object, do you regard the lines characteristic of its nature? or do you draw it in straight and continuous lines?
9. Name in figures, respectively, the number of planes, solid angles, edges, and right angles about a cube.

NOTE.—The common error in drawing chairs from nature is to make the seat too wide from front to back, and the back legs too long, as here; conveying the idea that any one sitting on the chair would slide off. Pencil-in-hand measurement should prevent this mistake.



LESSON 47. On Light and Shade as applied to Objects.

92. **On Light and Shade.**—You have already been told of the positive necessity for drawing every object accurately, without which light and shade can be of no avail.

93. **Purpose of Shade.** It is the purpose of light and shade, or rather shade and shadow, to make the object look solid—to show those parts which advance and those which retire, and thus explain the irregularity of surfaces, and, in fact, to exhibit the space an object occupies. And as you are now about to add to your drawings shades and shadows, in order more fully to produce those results, it is important, before you proceed further, to study well the laws relating to them, and, as far as posssble, experiment upon and prove these laws.

94. **How we see Objects.**—Objects are visible only by means of rays of light. These rays fall in straight lines, and objects which receive them are light or dark in proportion as they receive many or few. Some of these rays are thrown off (reflected) from objects—diverging in all directions; and it is by means of some of these reflected rays striking against the retina of the eye, that we are able to see objects.

95. Objects which appear white, reflect nearly all the rays thrown upon them, absorbing few; and dark objects absorb many of the rays, reflecting only few.

96. As in nature, so in art, light is attractive. When entering a room the eye is drawn, not towards the dark parts, but towards windows, light pictures, &c. Hence, art should be managed so as to make the light parts attractive, and the shaded parts quiet and retiring. Shade may be said to be the absence of light.

97. **'Shade' and 'Shadow.'**—In the study of light and shade as applied to art, distinction should be made between *natural shade* and *accidental shadow.* The following definitions may assist you in comprehending this,—1st. NATURAL SHADE *is that darkness* (of greater or less degree) *which is inseparably connected with every object receiving the light.* 2nd. ACCIDENTAL SHADOW *is darkness caused by one object interposing between another object and the light.*

98. For instance, if you look at Fig. 1, you will see the accidental shadow of the hoop on the jar. This accidental shadow would, of course, be moved on removing the hoop. This shows that the shadow does not belong to the jar, but is accidental.

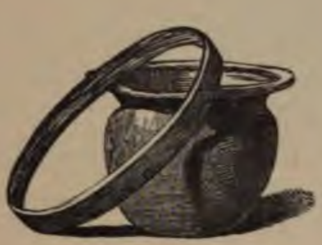


Fig. 1.

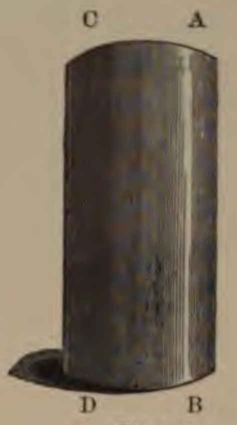


Fig. 2.

Neither shades nor shadows should be represented as absolutely black; they should possess some degree of luminousness, as, although direct rays of light are not cast upon them, they receive secondary or accidental rays from surrounding objects.

99. **On Sunlight.**—In bright sunlight the shades appear light, whilst the shadows are comparatively *dark, and clearly defined at their edges, especially when immediately next to the object casting them.* Look at Figs. 1, 2, 3, and 4, for evidence of this.

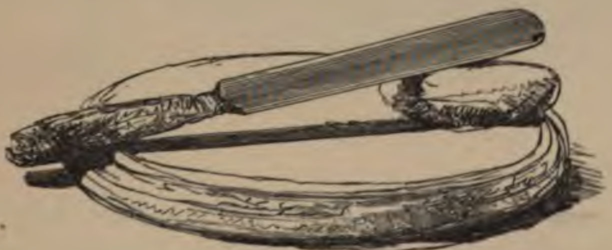


Fig. 3.

100. **Gradation of Shade.**—*In cylindrical figures and in rotund forms, such as those of the human figure, the shades separate from the light* GRADUALLY. *When objects are angular, the lights and shades separate abruptly,* as in all your preceding Lessons.

101. *The brightest light on a round form is usually at some little distance from the outline on the illuminated side, as at* **A B** *in the cylinder* Fig. 2, *and the shade is darkest at some little distance from the outline on the shaded side, as at* **C D.**

102. **On Cast Shadows.**—An accidental shadow may be lighter or darker than the object casting the shadow.

103. If the object casting the shadow be of the same colour as the object on which it falls, then the shadow is *darker* than the shaded side of the object casting it; it is still darker if it falls on a darker object. Look at Fig. 1; you will there see that the shadow on the jar is darker than the shaded side of the hoop, and if the jar were of a darker material, the shadow of the hoop would be in like degree increased.

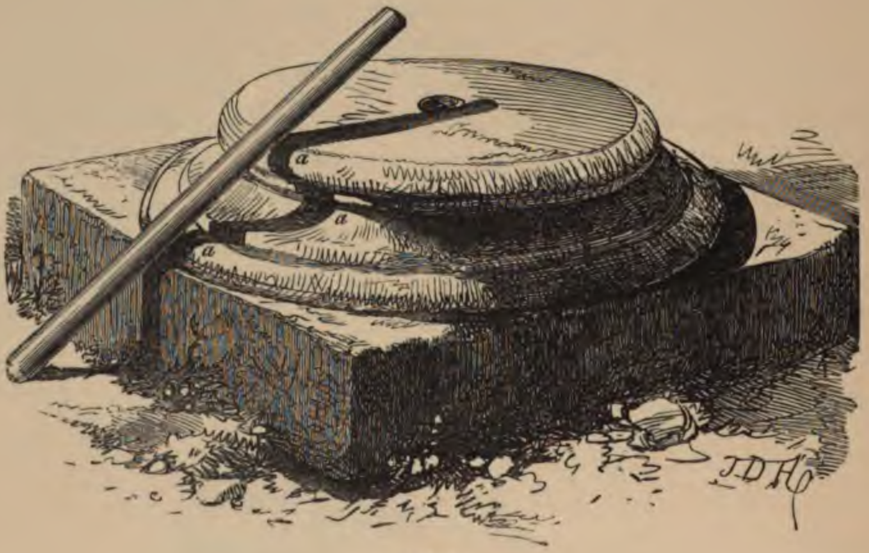


Fig. 4.

104. When an object casts its shadow on another of lighter colour, then the shadow is lighter than the shaded side of the object casting the shadow: for instance, when a brick house throws its shadow on one of plaster or light-coloured stone; or a book in black or dark-blue binding, on another in white binding. This, however, is not an invariable rule, as the depth of the shadow greatly depends on the proximity of the objects casting and receiving. Place your finger down on the paper, who will see that the shadow of it on the paper

is darker than the shaded side of your finger, although the shadow falls on an object lighter in colour than your finger which throws the shadow.

105. In cast shadows, then, having noticed the circumstances with reference to their depth, we observe: *That cast shadows do not mark the forms of the object casting them, but the surface of that which receives them.* For proof of this see Fig. 4, where the shadow of a stick is thrown across the base of a column. Now the shadow of the stick has no resemblance to the form of the stick, but it describes perfectly the varied surface on which it falls; but where it is thrown on a flat surface, as at the upper part of the base of the column—*there* you see the form of the stick.

106. It is often difficult, if not impossible, without the assistance of a cast shadow, to explain or comprehend a surface, as you will see by reference to Fig. 5, where you have the recess of a blank window plainly shown by the cast shadow in it; but you can form no idea of the surface of the architrave round the window,—you know nothing of the irregularity of its surface,—you see only a few straight lines; but if you look at Fig. 6, you will instantly see that the cast shadow from the moulding above the window has, by its form, perfectly depicted, not only the recess of the window, but the precise surface of the architrave around it.

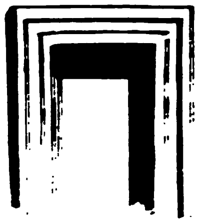


Fig. 5.

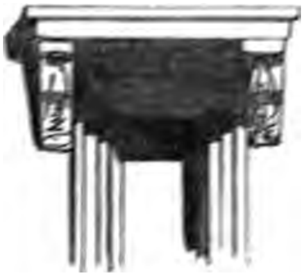


Fig. 6.

107. Now, all these are universal laws, and therefore you must be careful to understand them thoroughly, commit them to memory, and take every opportunity of observing their truth; you best see their action when shadows are cast upon white objects in strong light. These laws operate equally on dark and on light objects; but, as they are not so readily noticed, it is the more important that they should be known, so that the mind may teach the eye to observe them, and that both may direct the hand to portray them.

108. Without such knowledge, drawing from nature would, indeed, be a blind and blank occupation; it would be a pursuit of objects you could not see, and an unmeaning record of what you did not understand.

109. The rules which regulate true art are like those which should govern our life, and in both it should be our object, *not merely to copy examples, but to discover and obey the laws which they illustrate.*

LESSON 48.

Questions for Examination:—

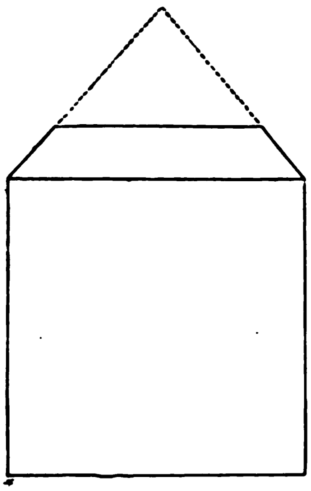
1. Explain, as concisely as you can, *how* we see objects.
2. What is shade?
3. Explain the difference between shade and shadow.
4. When only can they be of any avail?
5. For what purpose are they applied to forms?
6. Where do you find the brightest lights and shades on objects of a cylindrical form?
7. How do the lights and shades on such objects separate?
8. How do they separate on angular objects?
9. May an accidental shadow be lighter or darker than the object casting it?
10. If darker—under what circumstances?
11. If lighter—why?
12. When shades and shadows increase in depth, is that increase gradual or sudden?
13. On what does the depth of a cast shadow also depend?
14. What form does a cast shadow portray?
15. Under what circumstances does the shadow sometimes exhibit the form of the object casting it?
16. Where are cast shadows darkest; and where are they lightest?
17. What other features do you remark in reference to cast shadows?
18. Where is the light the brightest on objects which receive cast shadows?
19. On what objects are the laws in reference to cast shadows exhibited? and by what light?
20. Are they universal or partial?

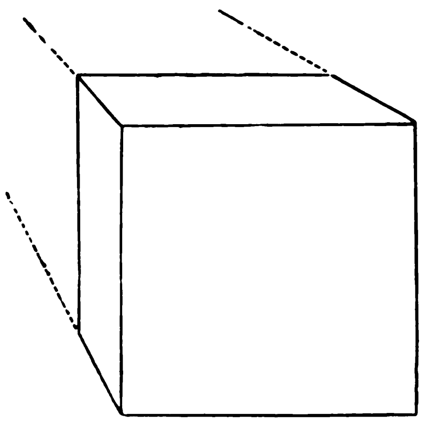
LESSON 49. On Angular Views of Objects.

110. **The work to be done, and how to do it.**—Read the following remarks before you proceed with the drawing of the figure. It is more than probable that as the next eight Lessons present to your eye nothing which is attractive, you will be disposed to pass on to those which are more winning. If you fall into this error, you will effectually arrest your progress, for unless these Lessons be well understood, you will find all beyond utterly impracticable, however they may be more pleasing; but if you learn these well, you will have mastered the most perplexing difficulties of all the future Lessons, and therefore they will cease to be difficulties to you; your undivided attention can then be given to the mastery of such as belong to each individual subject. By the exercise of these Lessons you will have acquired power not only to imitate the various examples contained in this and the following Sections, but *to draw the like from nature* with proportionate ability. This is the end to be aimed at continually—not as an amusing but as a valuable power; not as a pastime but as a necessity, which the circumstances of your future years may demand.

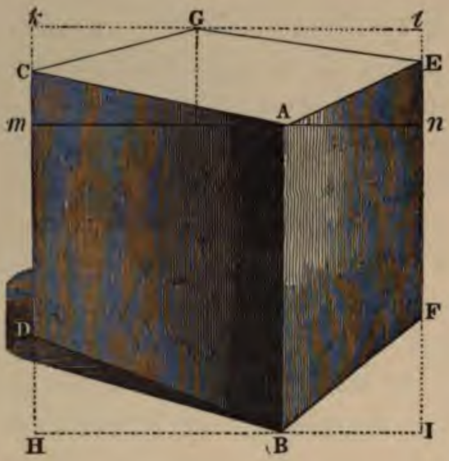
111. Whenever any reference is made in the future Lessons to those which have preceded them, it is most desirable for you to turn to them and read them again. Thus you not only fix them more securely on your memory, but witness their general utility, and become more willing, because more able, to practise them.

112. **Parallel and Angular Views of Cube.**—In Lesson 24 you had an example of a cube as seen when placed directly in front, showing only the front face





and top; and in Lesson 31 the same figure as seen to the right of and below you. In each case the front square was parallel to you (or, in technical language, parallel to the plane of the face), hence such a view is called a ***parallel view***. You have now to represent the same figure when the edge **A B** is nearest, and the three planes (two sides and top) are all oblique to you.



113. As the receding lines now retire both to the right and to the left, you will require *two* vanishing points, and these must always be on the ***same level***, viz. on a ***level with the eye***.

114. **How to find Vanishing Points.**—The mode of finding these vanishing points is simple, as in the parallel view.

1st. Draw the front line **A B** and fix its length exactly.

2nd. Decide the distance of one of the side lines from **A B** (say **C D**) and draw it indefinitely.

3rd. Similarly determine the distance of the other side line (**E F**) from **A B** and draw it indefinitely.

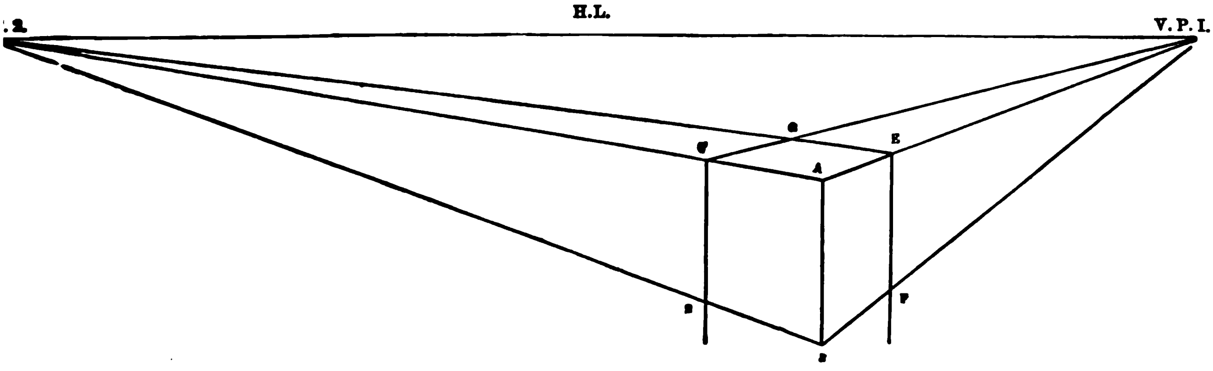
4th. Ascertain accurately the slant of one of the receding lines (say **B F**) by the right angle **B I F** and produce it indefinitely.

5th. Likewise obtain the inclination of **A E** producing it to meet **B F**. The point of section is the vanishing point on that side of the cube, and also the height of the horizontal line, which ought at once to be drawn to the left of your paper, and marked **H L**.

6th. Copy correctly the slanting line **B D** and produce it to the **H L**. The intersection thus produced is the second vanishing point. All the remaining receding lines will retire towards one or other of the vanishing points.

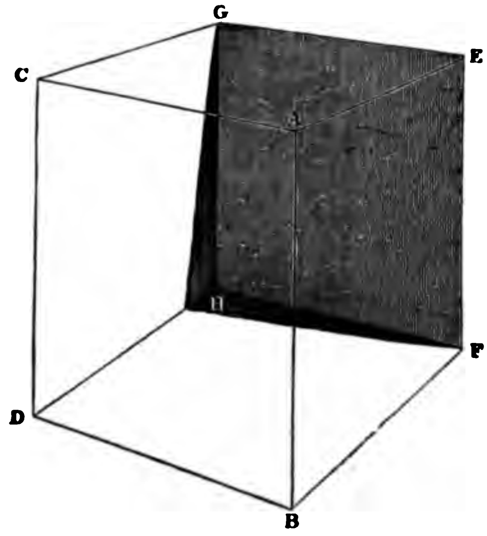
115. *This lesson should be repeated again and again, observing closely the instructions, until you are perfectly familiar with them, as they furnish you the key to many which follow.*

116. You may better understand the Lesson by observing the next figure.

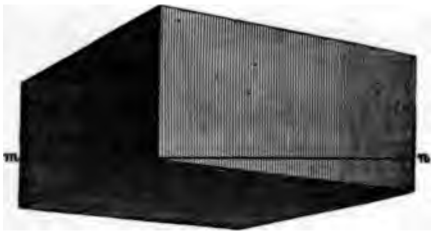


LESSON 50.

117. **Transparent Cube.**—If you should think the rules given in the last Lesson unnecessary to secure accuracy, you have now only to attempt this example without auxiliary lines or vanishing points, and when you have done your best, prove your work by extending the various receding lines; they ought to meet on the horizontal line, in two vanishing points the one on the right being nearer the cube than that on the left, as the recedence is more sudden on the right side.

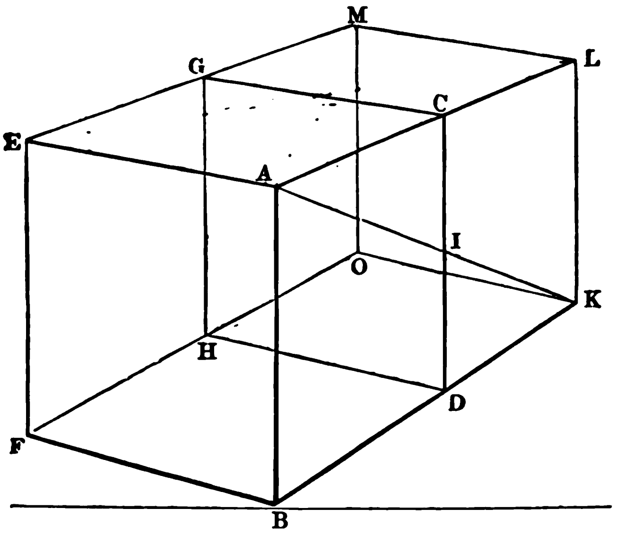


LESSON 51.



118. Here you will observe that as the object is *above* the eye, the corner nearest to you will be highest, and that which is furthest away will be lowest on your paper. The receding lines must all slope downwards to the right and left, and should meet in their respective vanishing points.

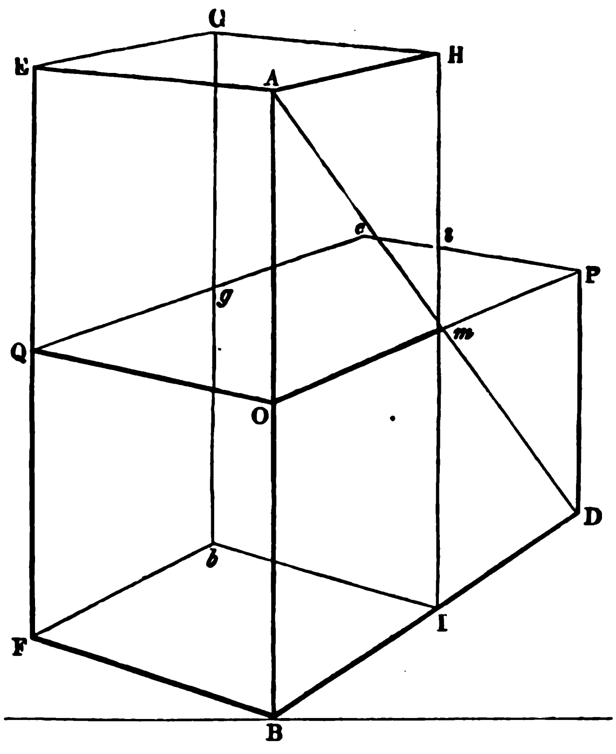
LESSON 52.



119. Represents to you, in the first and nearest portion of it, a cube like Lesson 50, with another more remote, of exactly the same dimensions, close to it on the right-hand side. It forms the framework for Lesson 56. The rule in Lesson 49 must be used in drawing the nearer cube; the proportionate size of

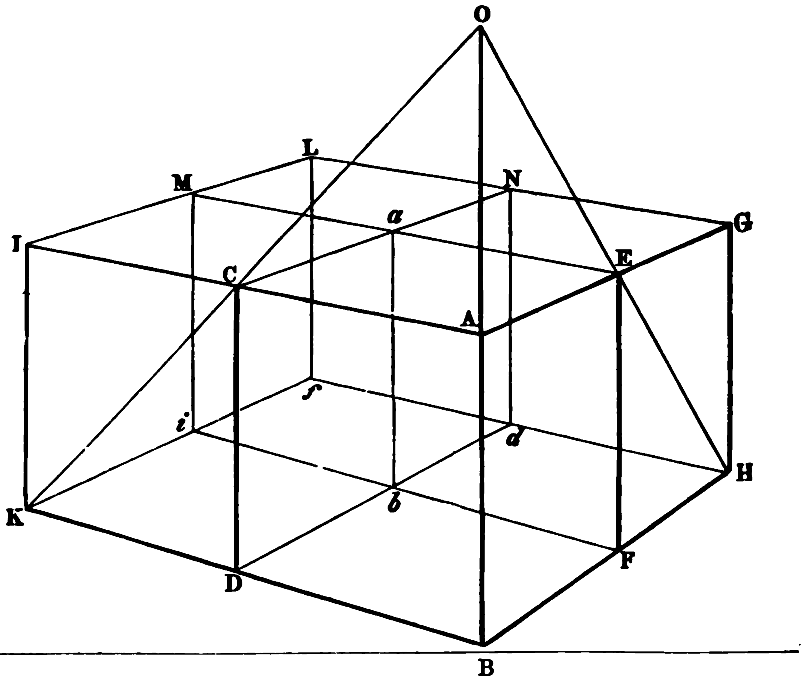
the second cube may be found by intersecting the lines **C D** in the middle at **I**, with the diagonal line from **A**; its intersection of the receding line at **K** gives the place for **K L**. From **L** and **K** draw towards the V.P. on the left; let fall a perpendicular line for **M O**, which will complete the two transparent cubes. Draw this figure of larger dimensions. You will at once see that everything depends on the accurate drawing of the first cube.

LESSON 53.



120. This figure may be drawn as in the last Lesson, afterwards placing an additional cube on the top of the nearer one; or, by drawing the two nearer cubes first, then adding the one behind, observing well the purpose of the diagonal line **A** *m* **D**; this is very important. If you are in any degree at a loss respecting this example, refer at once to Lesson 49.

LESSON 54.

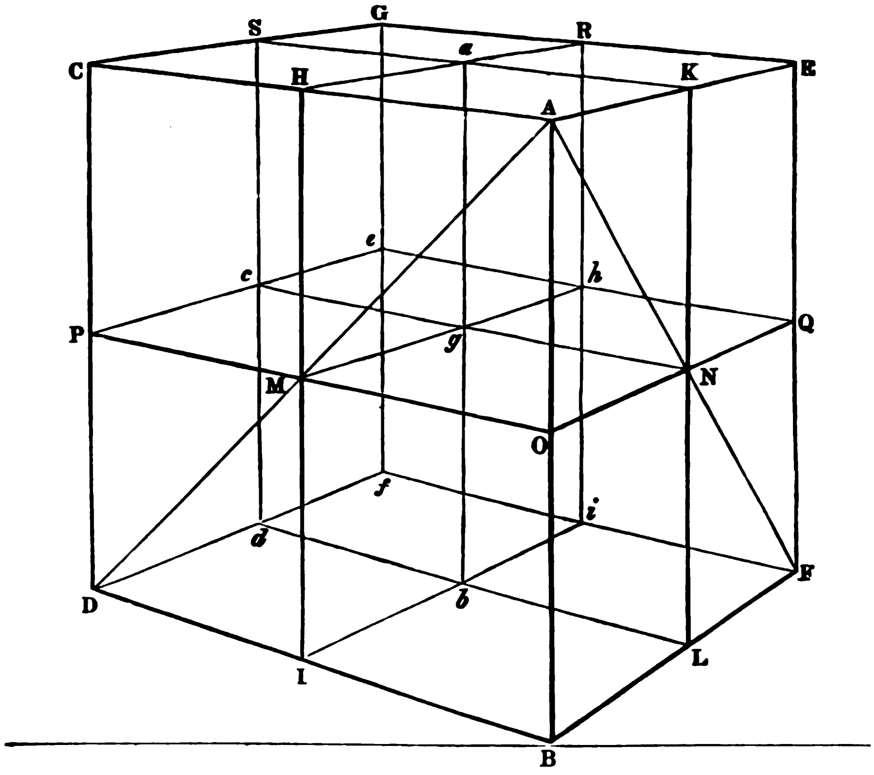


121. You may execute this Lesson another way, thus,—Draw the whole external figure (which is really half a cube) without regarding the inner lines; then intersect each side with diagonals, by which you may obtain **C D** and **E F**; from each of these respectively rule towards the vanishing points, which will give the places for **M** *i*, **N** *d* and *a b*. The diagonal lines **O C K** and **O E H** show another means of proving the exactness of the work.

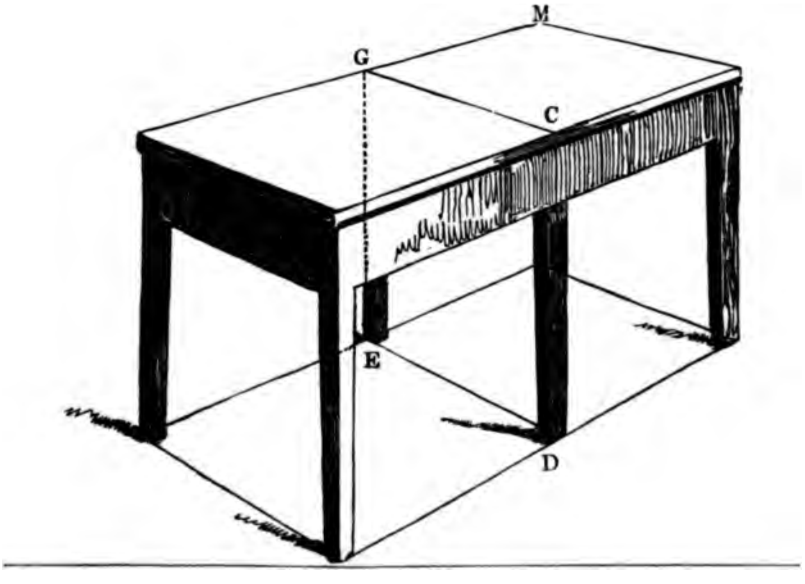
LESSON 55.

122. This Lesson consists of eight cubes of equal size, the lower four placed and represented, as in the last Lesson, with four other cubes of equal size placed upon them; and thus you may consider them either as eight separate cubes, or as one large cube divided into eight smaller ones of equal magnitude; and so considered, you may most easily draw them.

123. **Examination.**—When you have accomplished this Lesson according to the preceding rules, you should *honestly examine yourself* (or ask your teacher to do so) to ascertain if you fully understand your work and may proceed. This examination is most important to you, because you will find, by constant experience, that it is necessary for you to possess a clear mental perception of all you do.

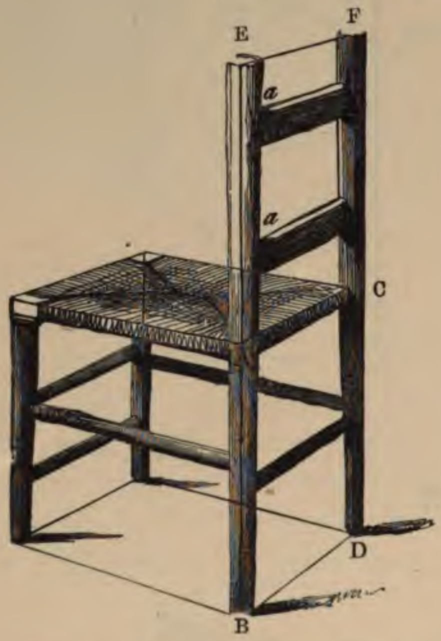


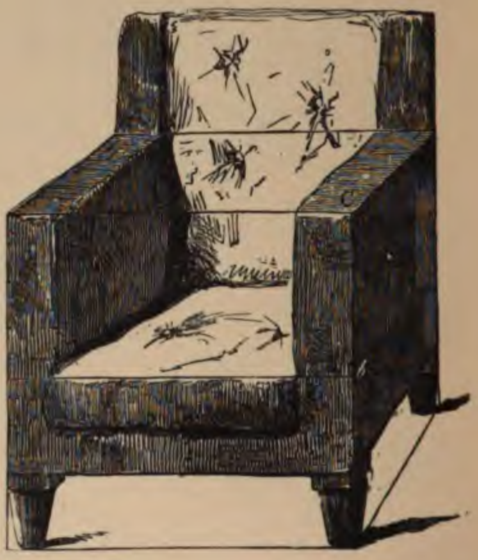
LESSON 56.



124. In this lesson you have a table constructed on the same framework which has served you for several preceding Lessons, and is intended, with the chairs, to show you the extensive application of what you have already learned. A few examples only could be here given; it remains for you to test your acquirement by attempting similar subjects from nature. Use a hard pencil with a fine point to give the idea of hardness of wood, and enlarge the subject one-half.

LESSON 57.

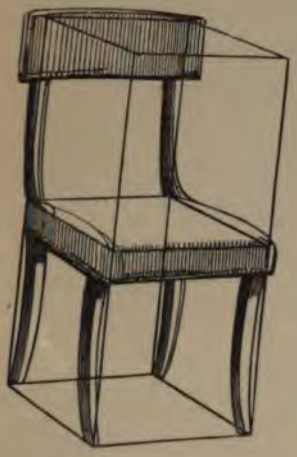


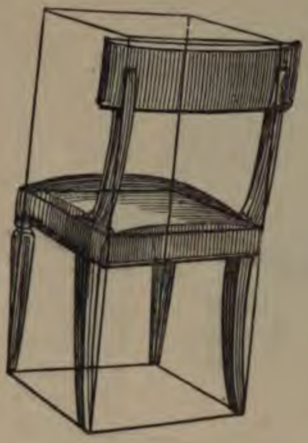


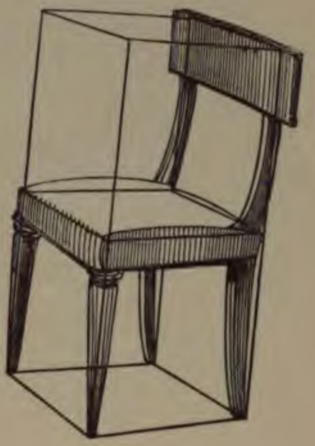
125. Always be systematic in your mode of procedure. Draw the cube first, set up **A E** equal to **A B**, and **C F** equal to **C D**; draw **E F**, and the framework of the chair will be complete. Add the rails to the back and legs, taking care to observe the places of their insertion, thus drawing them structurally.

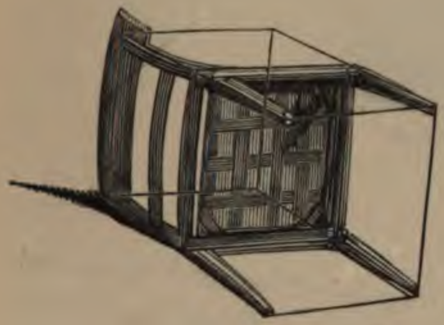
126. In completing the drawing let the shades and shadows be well attended to, and make the wood of the chair look hard by thin lines, especially clear at their edges or contours.

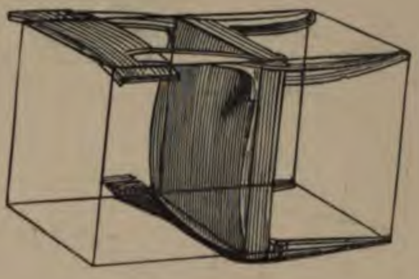
127. In drawing the arm-chair you will require no special directions. On the next page you have further illustrations of the same rules. These should be drawn *from nature* and larger than the woodcuts.

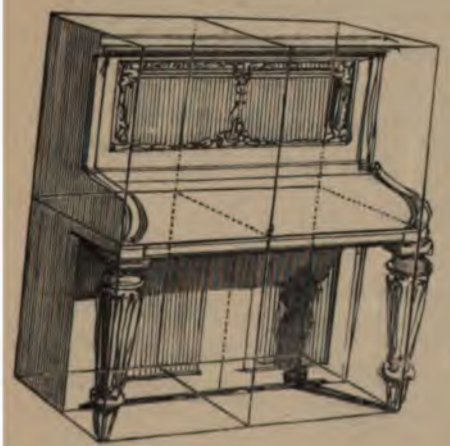


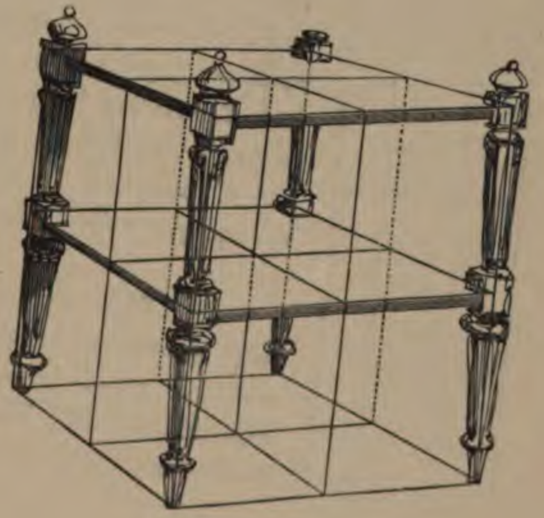




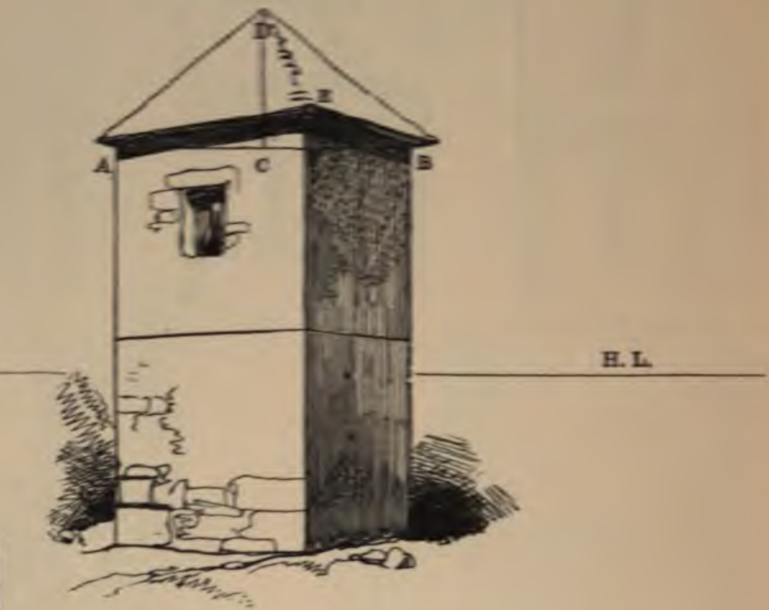


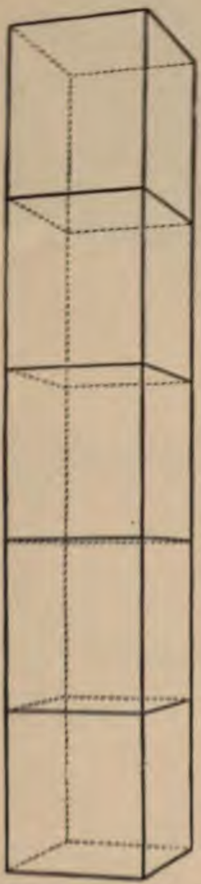






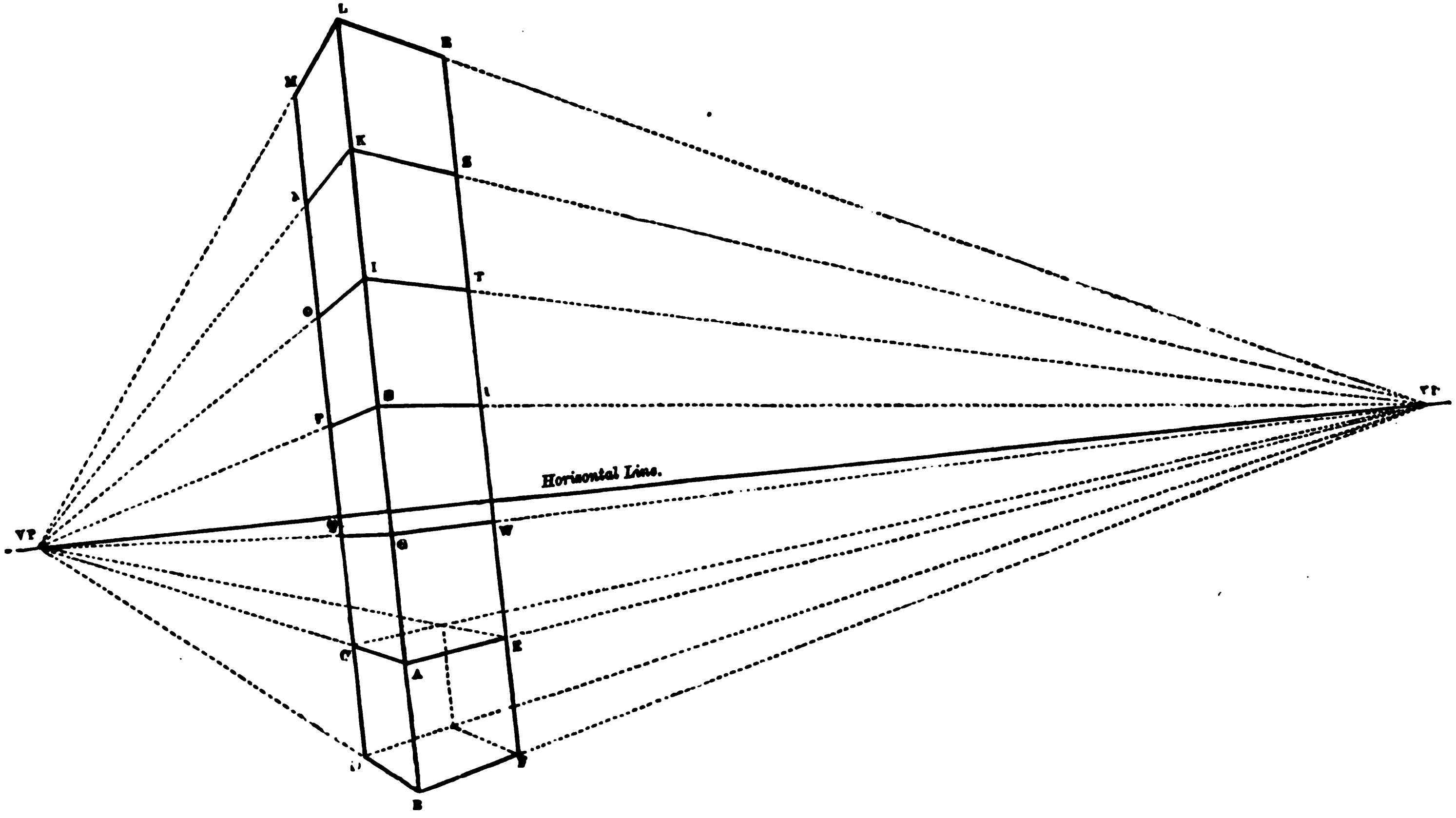
LESSON 58.





128. In this Lesson, composed of two cubes surmounted with a pyramidal roof, you will observe that the receding lines **E A** and **E B** slant downwards, and those forming the base of the building slant upwards, whilst those in the middle (where the cubes separate) are nearly horizontal. To find the apex, or top point of the roof, draw a line straight across from **A** to **B**, dividing it equally at **C**, from which point set up a perpendicular line to **D**; then draw from **D** towards **A**, **E**, and **B**, projecting the eaves or edges of the roof well over the upright walls of the building.

129. The value of the vanishing points will be more fully appreciated by observing the figure on the next page, which it would be almost impossible to draw accurately without their aid. The figure adjoining also affords further illustration.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Horizontal Line.
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B

LESSON 59.

130. The intention of this Lesson is to show a cottage seen obliquely. If you have models, put three cubes together, and roofs on them, till you have obtained the form of the cottage in this Lesson, when you will better understand it.

131. Draw the whole of the figure composed of the lines uniting the point **A**, **B**, **C**, **D**, **E**, and **F**. The place for **G** may be found by means of diagonals **A**, **F**, **E**, **B**; then observe where **H** comes over the line **A C**: afterwards sketch in the chimney and doors.

132. The rules referred to in your last Lesson apply equally to this. Keep the shades even, but not too dark, and the shadows clear and well defined.

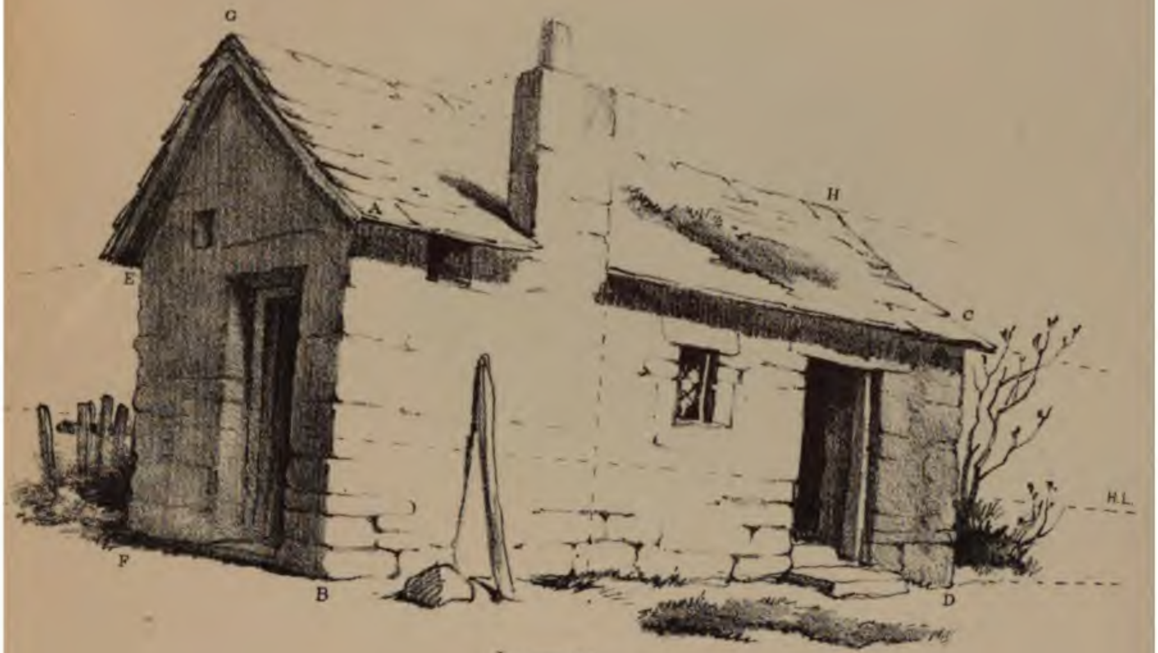
LESSON 60.

133. This Lesson is a very important one, and should be well learned, as the stepping-stone to many which follow, and because frequent reference will be made to what you have here been taught.

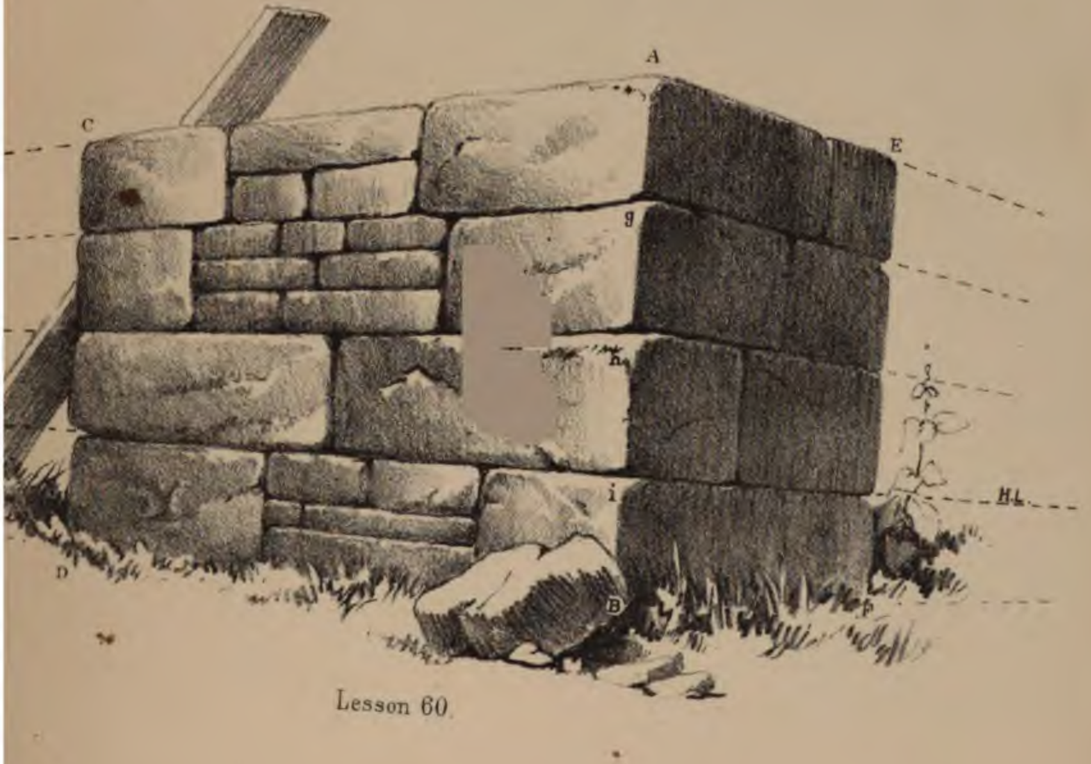
134. First begin by drawing, with straight and continuous lines, **A B**, fixing its length, then **C D** and **E F** indefinitely. Divide **A B** into four equal parts. The eye is supposed to be on a level with the third division from the top, you may therefore rule this line indefinitely for the H. L. Now draw accurately **A C** and **A E**, and by extending them you will obtain the vanishing points on the H.L., towards which all the other receding lines may be drawn, thus completing the outline of the figure, which should now be carefully rubbed light ready for shading.

135. **On Expression of Character.**—In placing the upright divisions of stones take care not to place the division of one course immediately over the division of another. These divisions or spaces between the stones ought so to be represented as to give the idea, *not* of lines, as is often the case, but of holes into which some small object might be inserted. If you fail in accomplishing this the Lesson is lost, and must be attempted again. These divisions vary in their breadth and depth of colour: they thus represent the condition of the wall, when the humidity of the atmosphere has moistened the cement which originally bound the stones together, and when, in course of time, it has fallen away from the joints, and the corners of the stones have become more or less rounded. This may be seen on the outer angles **C D** and **E F**, but especially on the nearer angles

PLATE 5.

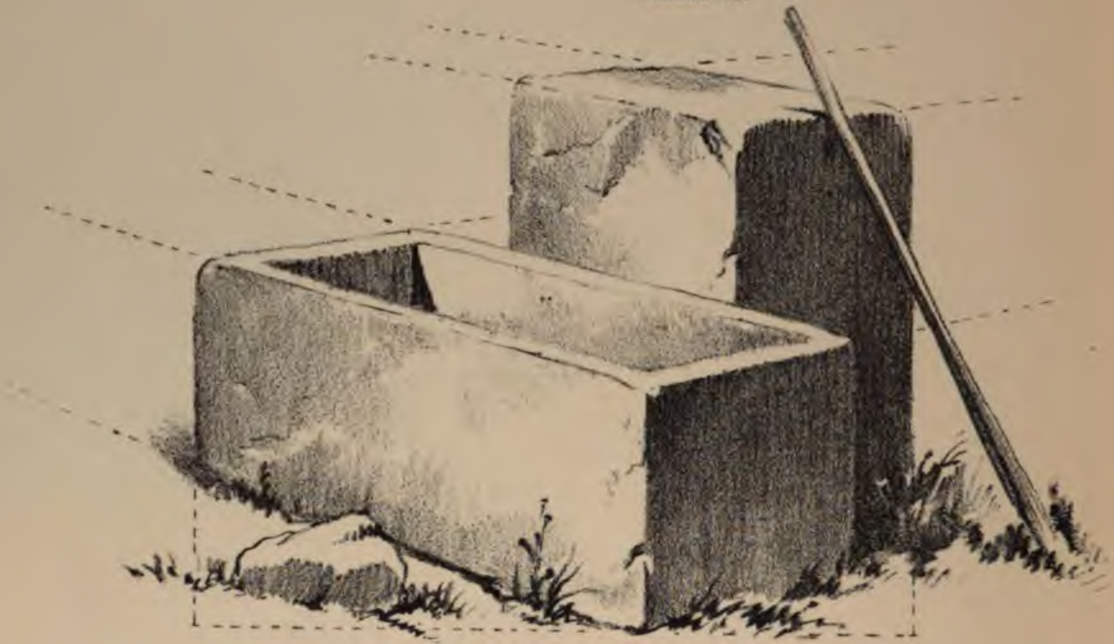


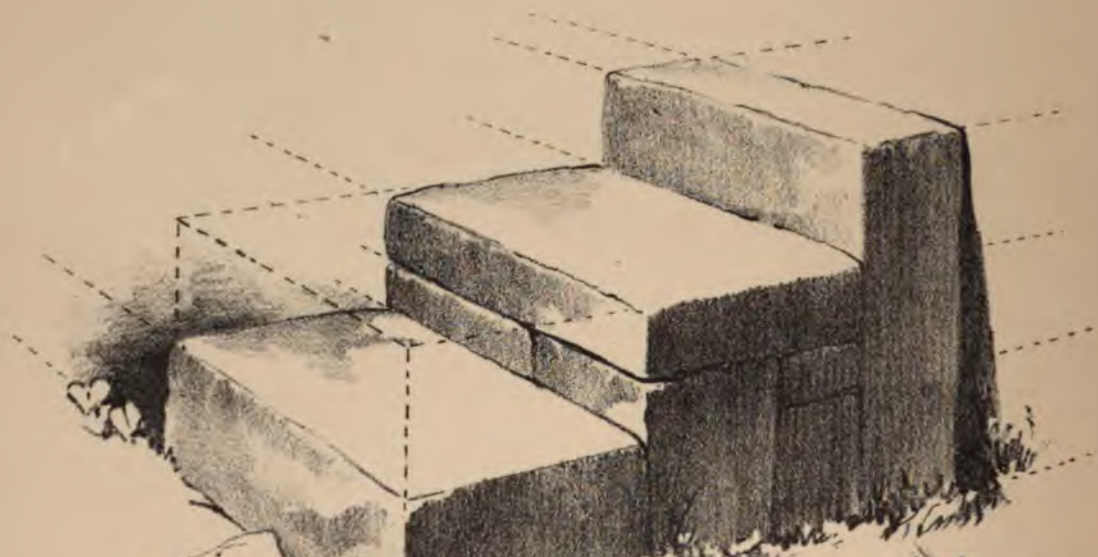
Lesson 59.



Lesson 60.

Lesson 61.





Lesson 62.

A B. All the varieties of colour, and the emphasis they give, you must especially mark, as well as the little breaks of light on the upper corner of the stones at *g*, *h*, and *i*.

136. The unevenness and grain of the stones being characteristic must be carefully secured.

You now see that all these varieties of form and shade are not the results of caprice, but come from the knowledge of nature, and the effort to follow her; and it is only by thus knowing her that you can ever be skilful yourself, or judge of another's skill. My object is, that you shall *have a reason for every line you draw*, and also to show you that *whatever you do without reason is worthless.*

If, now, you look back to the Lessons you have already passed, and forward to those you have yet to study, you will find that the lines, however small, expressive of the stones or bricks on the surfaces, or the edges of objects, have all been put on under *guidance of the knowledge here conveyed:* thus every touch is accounted for. This Lesson should be drawn from memory.

LESSON 61.

137. In this Lesson, consisting of a stone trough and block, you will require but little aid; the dotted lines will indicate to you the direction in which the vanishing points lie. After having obtained an accurate outline, rub it very faint with a crumb of bread, and proceed to shade.

138. **On Expression of Character.**—Great attention must be given to the *equality* of the shade. Give great emphasis to all the darker parts, which must be darkest on the ground at the nearest angle of the stone. Especially observe to give to the shade even and well-defined edges, and a broken and well-defined edge to the shadow on the grassy ground. It is very essential that at all times the limits of the shades and shadows, especially the latter, should be clearly defined.

LESSON 62.

139. Be very careful to secure an accurate outline of the steps, which bear an exact relation to each other. For this, as in your last Lesson, no special instructions are necessary, as the rules are the same.

140. In shading, observe that the upper edges of the stones are marked only by the upper ends of the lines of the shading; they should not on any

account be marked by a continuous outline; as they are more worn the greatest attention must be paid to the narrow spaces of light on their upper edges, and on their broken corners, and also on the clear, dark, and irregular lines which mark the bottoms of the stones. These lines or shadows are not only irregular in their intensity or brilliancy, but also in their width, and are especially smart and cutting at the angles. The shaded side of the stones is lighter towards the lower part; this arises from the reflection of light cast from the light grass and ground. The whole character of the Lesson depends on your carrying out these observations.

141. **On 'Memory Drawing.'**—These Lessons you should draw both from the examples and from memory; and when any Lesson has been completed, it is a good plan for you to examine whether you have carried it into execution, from having really learned what you have been taught, and thus make sure that what you have done is not due to the eye only, but equally to your intelligence.

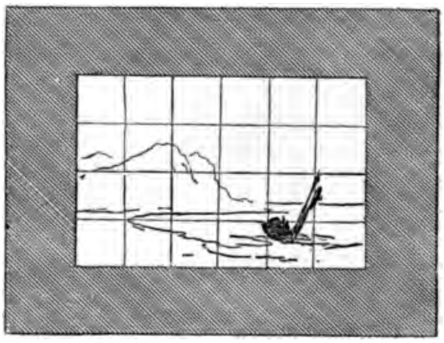
LESSON 63.

142. **Questions for Examination**:—

1. How many regular views of objects are there?
2. What is meant by a parallel view of an object?
3. What is meant by an angular view of an object?
4. How many vanishing points are there in an angular view of a cube on a horizontal plane?
5. What is 'the horizontal line' (H.L.)?
6. In an angular view of a cube or a cubical object, how do you find the vanishing points?
7. In an angular view of an object the two vanishing points are not always at an equal distance from the object; explain under what circumstances they are, and under what circumstances they are not so.
8. Upon what does the distance of the vanishing points from the object depend?
9. Refer to and then draw Lesson 55 from memory, leaving all the auxiliary lines on the paper.
10. Draw a portion of a wall,—its side retiring,—and show that you can give the exact inclination of the courses of the stones or bricks composing it, and explain its construction, and whether you would represent the divisions of the stones by lines of regular or irregular breadth and depth, and why.

THE 'DIASCOPE.'

The 'Diascope,'* as its name implies, is in its simplest form merely a piece of card-board or thin wood, with an aperture cut in it through which to view the best parts of a landscape and conceal the remainder; or by which to judge more easily of the slant of any receding lines when drawing objects such as boxes, chairs, buildings, &c., from Nature. It may be made of any size and proportion, but a convenient one may be made with a piece of card-board, say seven inches by five, or larger, with an opening of five inches by three; or ten inches by eight, with an opening of six inches by four. This opening may be divided at the inches by intersecting threads, perpendicularly and horizontally, as shown in the figure below.



When a student, in drawing objects from Nature, experiences a difficulty in determining the inclination of any retiring line, let him close one eye and with the other look through the aperture, when the inclination of retiring will be instantly felt by comparison with the threads of the instrument; or when a student goes to Nature, and has an extensive view before him, and is perplexed to know how much, or what part, of what lies before him, he should take as his sketch, let him with one eye look through the 'Diascope' when held at from six to ten inches away from him (according to the size of the opening), and move it to the right or left, and up or down, till he has found that part of the landscape which will give him the best material.

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* See also pages 30* and 30†.

SECTION III.

LESSON 64. On Curved Objects.

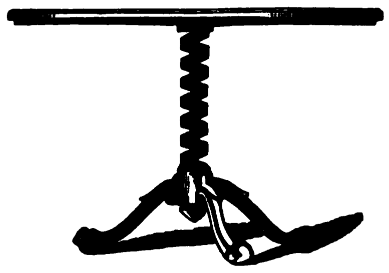


Fig. 1.

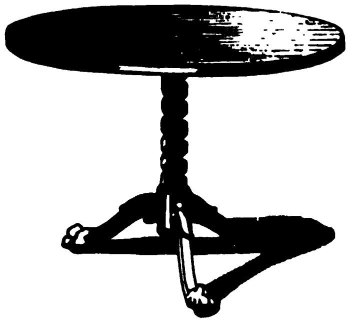


Fig. 2.

143. Stoop down so as to bring your eye on a level with a round table, and the top of it will appear a straight line, as in Fig. 1; as you rise, the table top will no longer appear a straight line, but a curve, as in Fig. 2. The more a curved object is below the eye, the wider its curves will be, as may be seen in Fig. 4, where the bottom part curves much more than the top. If the part is above the eye, then the lines will appear to curve over, as in Fig. 3. Again, if a cylinder be placed horizontally and opposite to the eye, the middle part will appear a vertical line, as in Fig. 5; and the portions to the right and left respectively will appear as vertical curves, widening as they get more to the right or left.

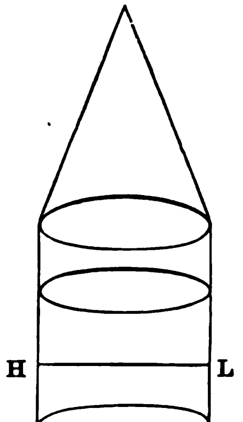


Fig. 3.

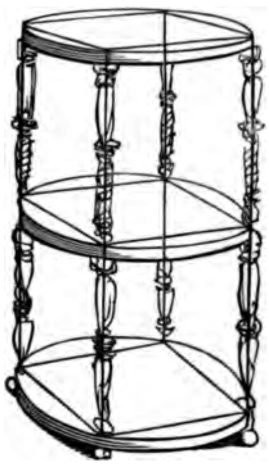


Fig. 4.

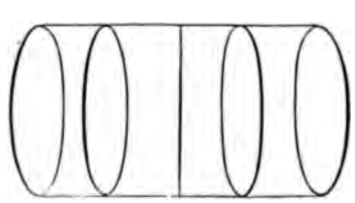
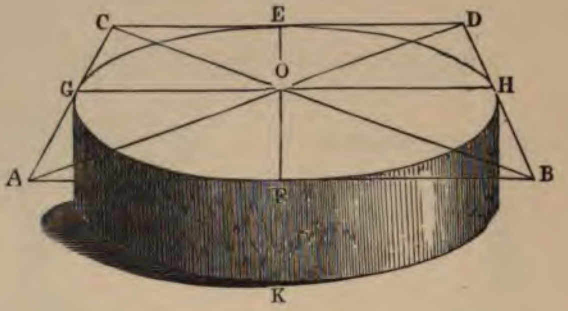
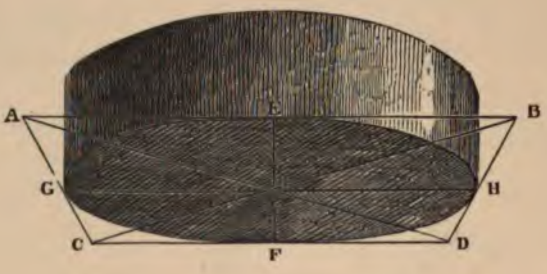


Fig. 5.

144. **How to draw a Circle when seen Obliquely.**—The figure here given for your Lesson is somewhat like a grindstone, to which the above remarks apply. To draw this, first represent the square **A B C D** as seen in perspective, and with the diagonals. This framework being done, draw the top of the stone, taking care to make the curved lines touch the points **G E H F.** Perpendicular lines of equal length should now be drawn down from **G** and **H** for the thickness of the stone, and when drawing the line for the bottom of the stone, take care that it curves *more* than **G F H,** *because it is more below the eye;* and you will thus have it deepest at **F K,** which is the nearest part to you, and should therefore be the widest. The further half, **G E H,** does not curve so much and looks narrower than **G F H,** which is nearer, and therefore looks wider.

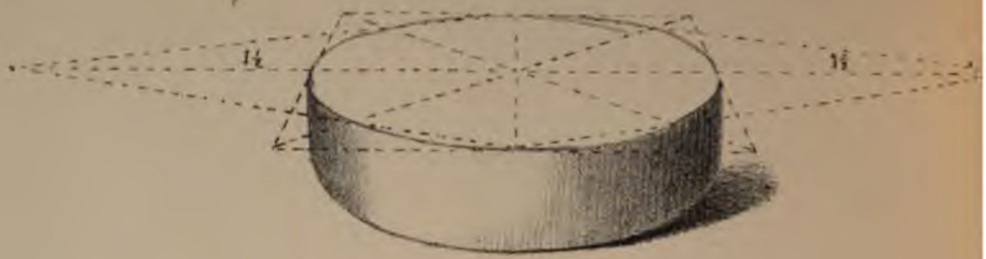


LESSON 65.



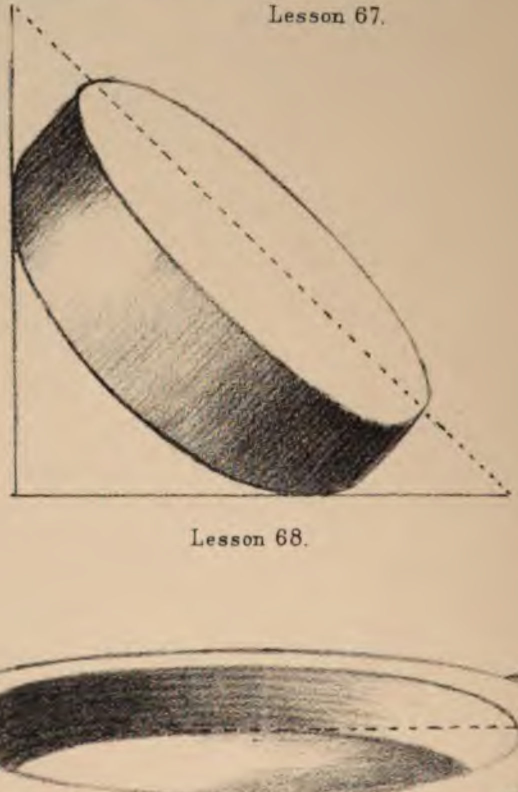
145. Exhibits the grindstone as seen when it is above the eye. The instructions and observations given in the last Lesson apply equally to this, and having understood those you should be able to draw this easily.

PLATE 7

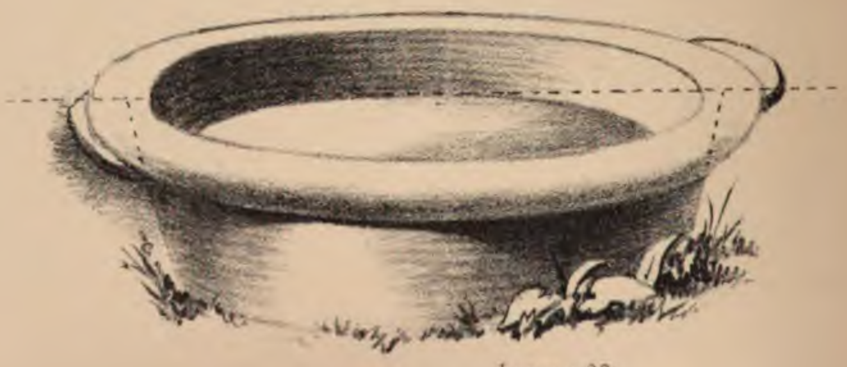


Lesson 66.

Lesson 67.



Lesson 68.



Lesson 69.

LESSON 66.

146. **More Exact Mode.**—By the auxiliary lines in this Lesson you may learn how to draw more accurately a circle when viewed obliquely. After drawing the square **A B C D** as in Lesson 64, extend **O G** one and a half times its length to the left, from which point draw to **E** and **F** respectively, which will give the place of intersection for the curve on that side; the points of intersection for the other half of the circle can be found in like manner.

LESSON 67.

147. The subject of the last Lesson is here made into a hassock by means of the curved lines over the top, which should be carefully expressed, so as to give the idea of softness; the shading, too, should aid in this by being kept soft and graduated.

LESSON 68.

148. In the oblique view of the grindstone you must be careful to have the axle in the centre, and at right angles to the plane of the circle. See ¶ 143.

LESSON 69.

149. In the dish note carefully where the rim is widest, and mind that the vessel is well set in the ground, the herbage having grown around it and concealed a portion of its outline.

LESSON 70.

150. Unless you have perfectly understood the previous Lessons you will find this and the next one difficult. Great care is required in drawing this oval figure so as to curve it properly. The distance across from one handle to the other may be judged of by a perpendicular line made or supposed. In drawing the inside of the vessel it should be regarded in connexion with the exterior bottom line. It should be observed also that the vessel inside is seen to be shallower, even considering its distance, than at the outside in front.

151. The shades must be accurately graduated, and the shadows all have sharp and well-defined edges. The direction of the lines of the shading must be carefully noticed, their relative intensity, and where they are darkest; and the outline of the object everywhere be firmly drawn.

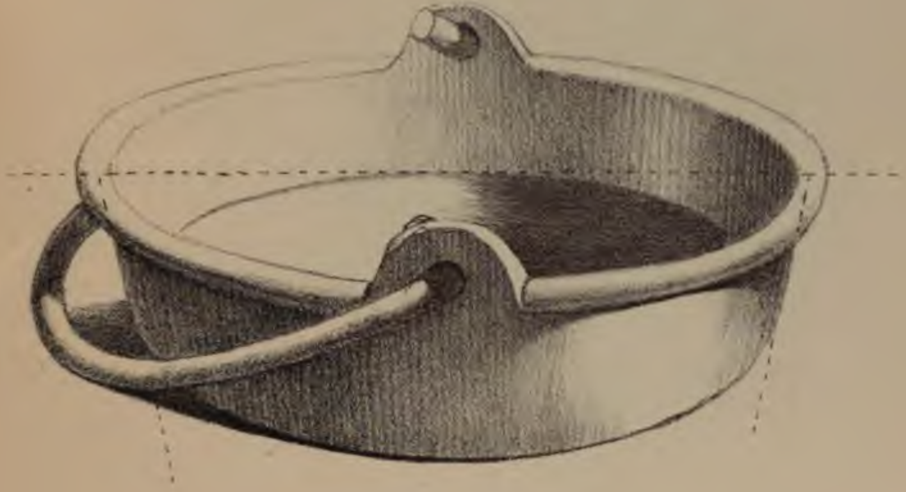
LESSON 71.

152. This Lesson is more difficult than the preceding ones, and will require great care, especially in drawing the curvature of the hoops.

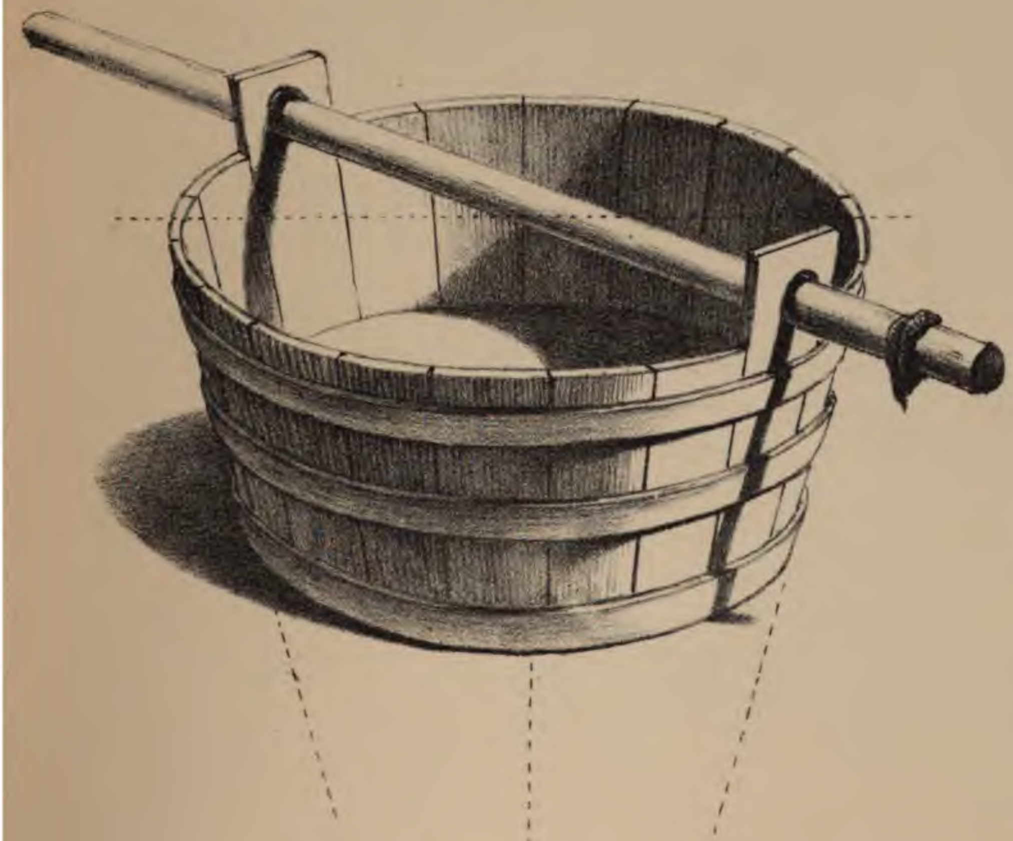
153. Begin by drawing a horizontal line, and place the curve forming the top of the tub upon it. From the middle of the line let fall a perpendicular line, any length, and then, observing accurately the inclination of the line at each side of the tub, draw it till it meets the perpendicular line just produced. This point is a *converging* point, towards which the staves of the tub should incline. The hoops will require great care to secure their equal thickness and proper curvature, and to make them appear to go well round. The handles must be placed opposite to each other, which may be done by drawing a straight line through the middle of the first horizontal line. They must slant towards the converging point.

154. **On Shades and Shadows.**—All the features of cast shadows are, in this subject, especially manifest. If you look at the shadow of the stick to the right on the front of the tub, you will see by its form how clearly you distinguish the projection of the hoops from the tub, and that they are flat hoops. Look also at the shadows thrown from these, how they mark the smooth roundness of the tub; and notice the shadow of the stick thrown on the inside, and how entirely it is in form different from that on the outside. See also how dark the shadows are close to the object casting them, and how sharp and defined are their edges. Above all things, let the outlines be pure and cleanly drawn, and usually a little darker everywhere than the shades.

155. When drawing curved lines for objects of some size, like these Lessons, it is not easy to draw them with the hand resting on the table; you should merely support the hand by the tip of the little finger, and allow the whole arm motion from the shoulder, when you will be able to draw curved lines, not only with more accuracy, but with more freedom, especially if the pencil be held as shown in the figure on page 77.

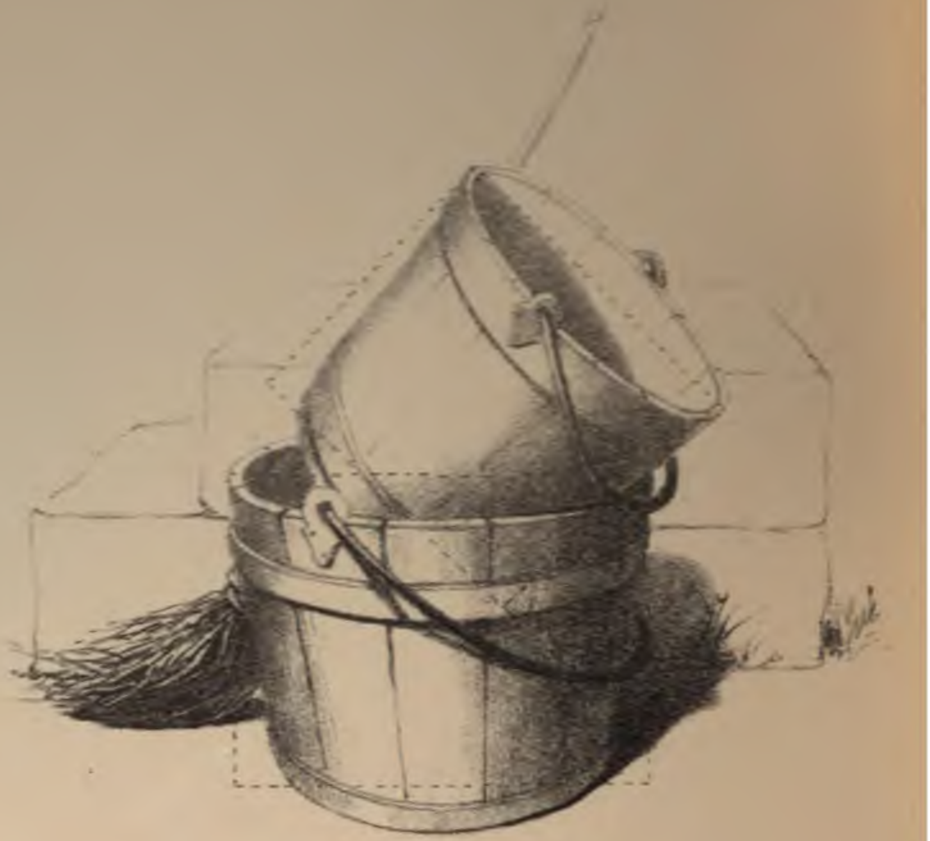


Lesson 70.

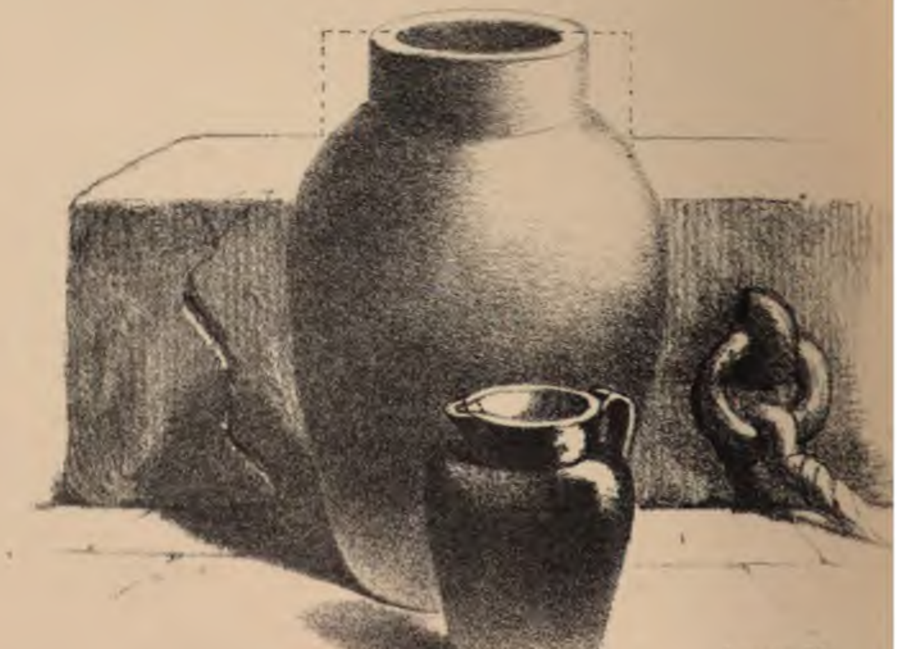


Lesson 71.

PLATE 9

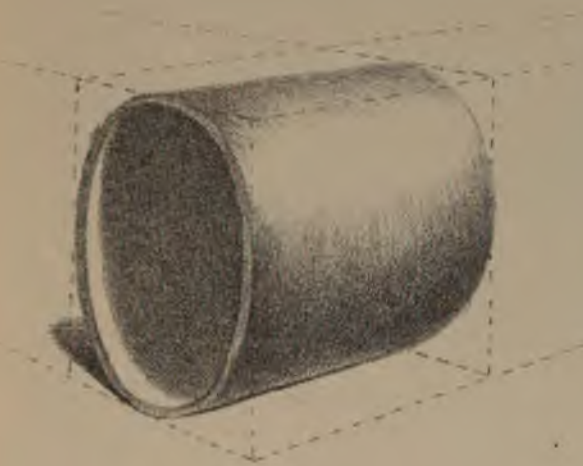


Lesson 72.

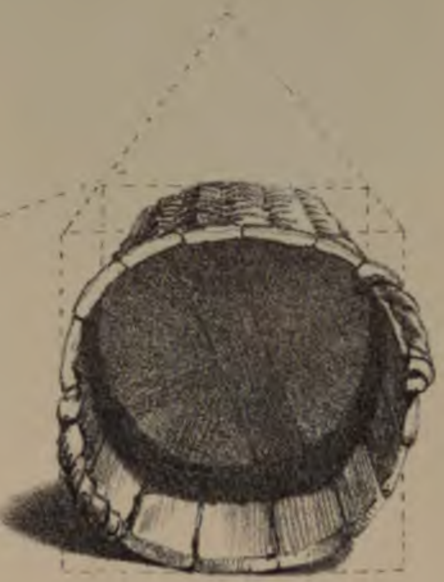


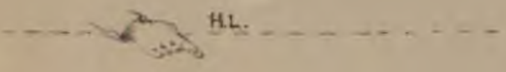
Lesson 73.

PLATE 10

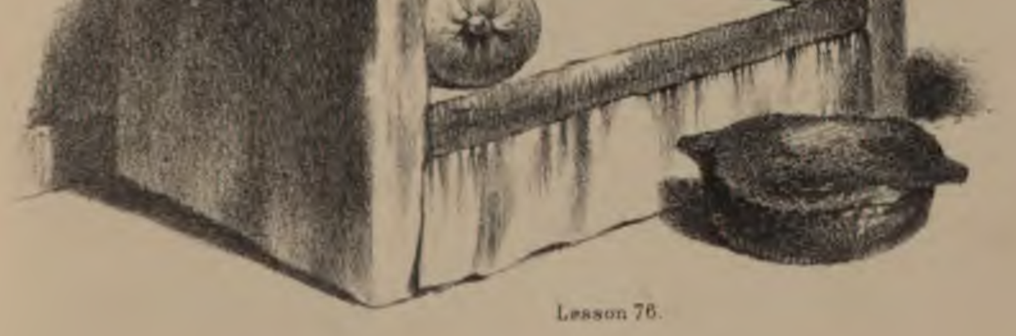


Lesson 74.





Lesson 75.



Lesson 76.

LESSON 72.

156. In the two buckets you have further exercise in drawing common but difficult objects. As success does not depend on the mere mechanical imitation of your example, *you should, if possible, draw from the objects themselves,* remembering to represent them structurally, *i. e.* as they are made.

LESSON 73

157. Be mindful to secure an accurate outline of these objects, and in their proper relative positions.

158. **On Composition.**—The arrangement or composition in this and some following Lessons is very important. The general guiding principle in composition should be, to give the idea of *variety with unity.* The shading must be most carefully graduated, and the local colour of the jug be kept dark, scrupulously preserving the *reflected* light. (See also Chap. 24, *Handbook of Drawing.*)

LESSON 74.

159. This Lesson shows you a hollow cylinder, of which one end is nearer to you than the other. When in sketching this subject, by the aid of the lines of the cube, you have made sure of the precise curvature of the curved lines, the cube should be rubbed out.

160. Several things are to be observed in shading this subject; the gradation of shade from the light to the dark parts, the direction of the lines of shade which indicate the curved surface, and the clearness of the shadow within the cylinder and on the ground.

LESSON 75.

161. The front of the hamper being parallel to you, appears in its true form. The wooden lining is partly in light and partly in shade. Objects in light should be clearly seen, whilst those in shade should be kept quiet and retiring; therefore see that the divisions between the staves, &c., in light, and the shadow upon them, are strongly defined, and the inner end of the hamper in deep quiet shade, especially in the upper part.

LESSON 76.

162. **On Expression of Character.**—The exterior framework of the sofa will recall to your memory the figure in Lesson 52; the hassock you have had in Lesson 67, but here it is represented as the worse for wear. In drawing it be careful to secure this idea. In the sofa and pillow, too, use tender lines to express the yielding nature of their surfaces, especially in the front parts, where, being in light, the character would be most clearly seen.

LESSON 77.

163. In this and the following Lesson you have two views of the same subject. Here the view is parallel, and consequently easy to draw, the front faces of the objects being of their true form, and all the retiring lines vanishing in one point, opposite the eye. The flower-pot and the plant will require nice care.

164. **On Contrast.** Be mindful to express the granularness and hardness of the various stone surfaces, which so much contrasts with the flow of the water and softness of the vegetation.

Without attention to these truths the Lesson will be lost to you.

LESSON 78.

165. The subject of the preceding Lesson is here represented in an angular view, consequently there are two vanishing points for the receding lines. As so many of the lines are straight, the curved objects serve to give desirable variety.

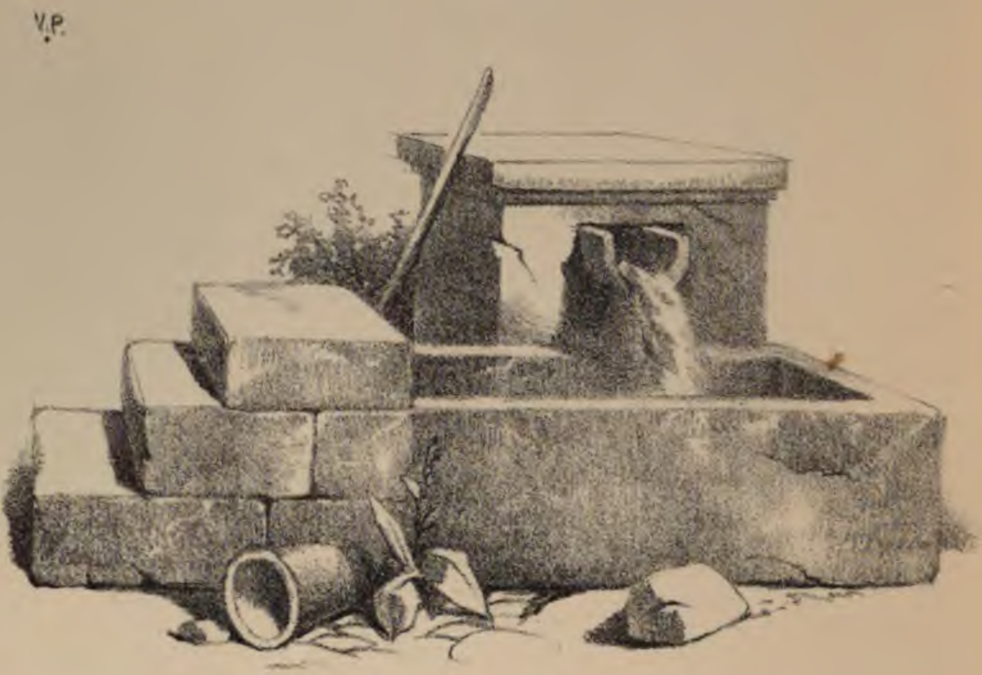
166. The instructions of the last Lesson apply equally to this, and must be strictly attended to.

LESSON 79.

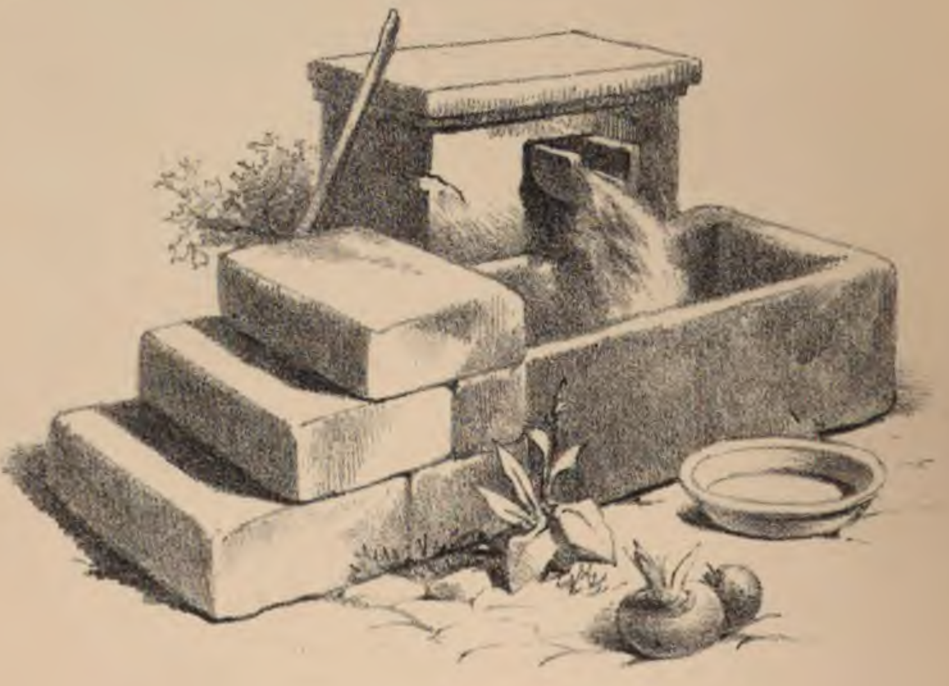
167. The combination of several objects to form an agreeable group should now have your attention.

168. **On Composition. Unity and Variety.**—If you throw down upon the table before you a number of articles promiscuously, such as coins, knife, purse, pencil-

PLATE II.



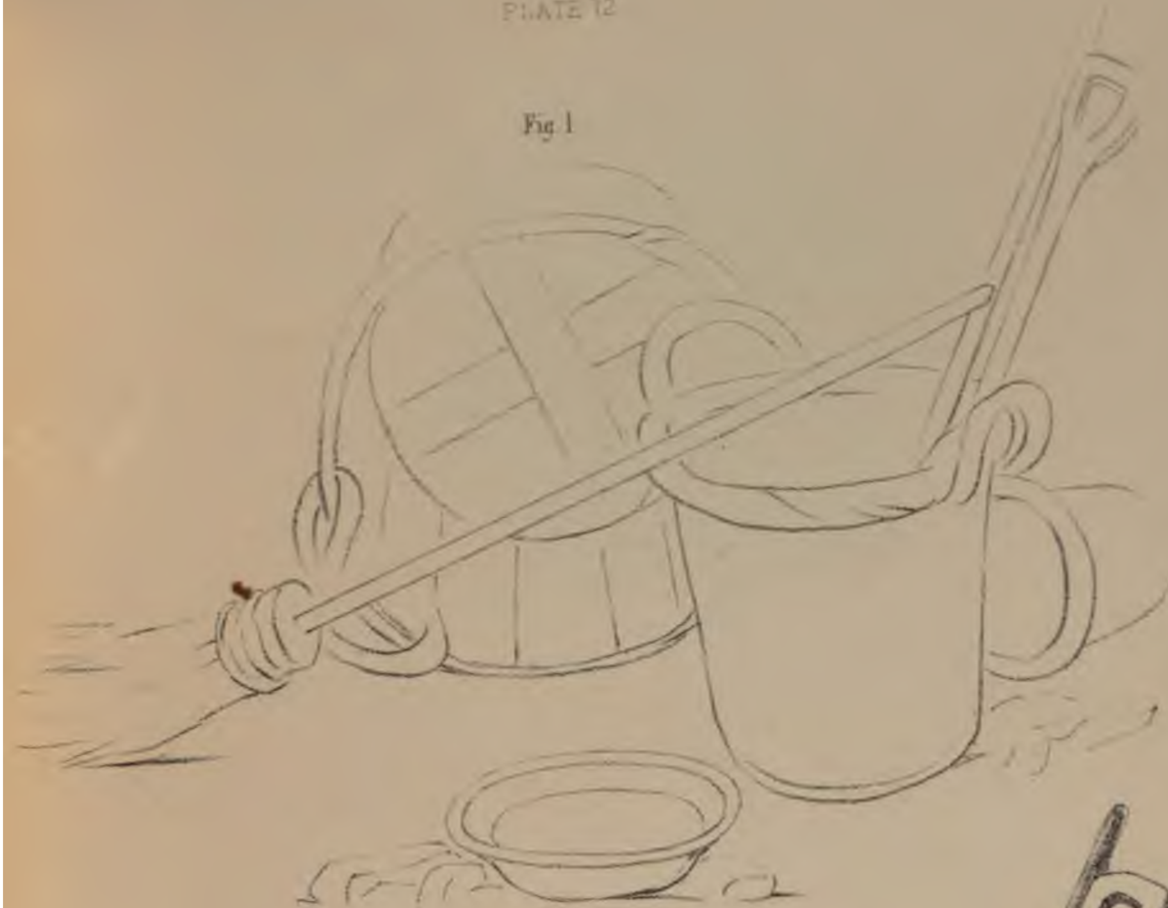
Lesson 77.

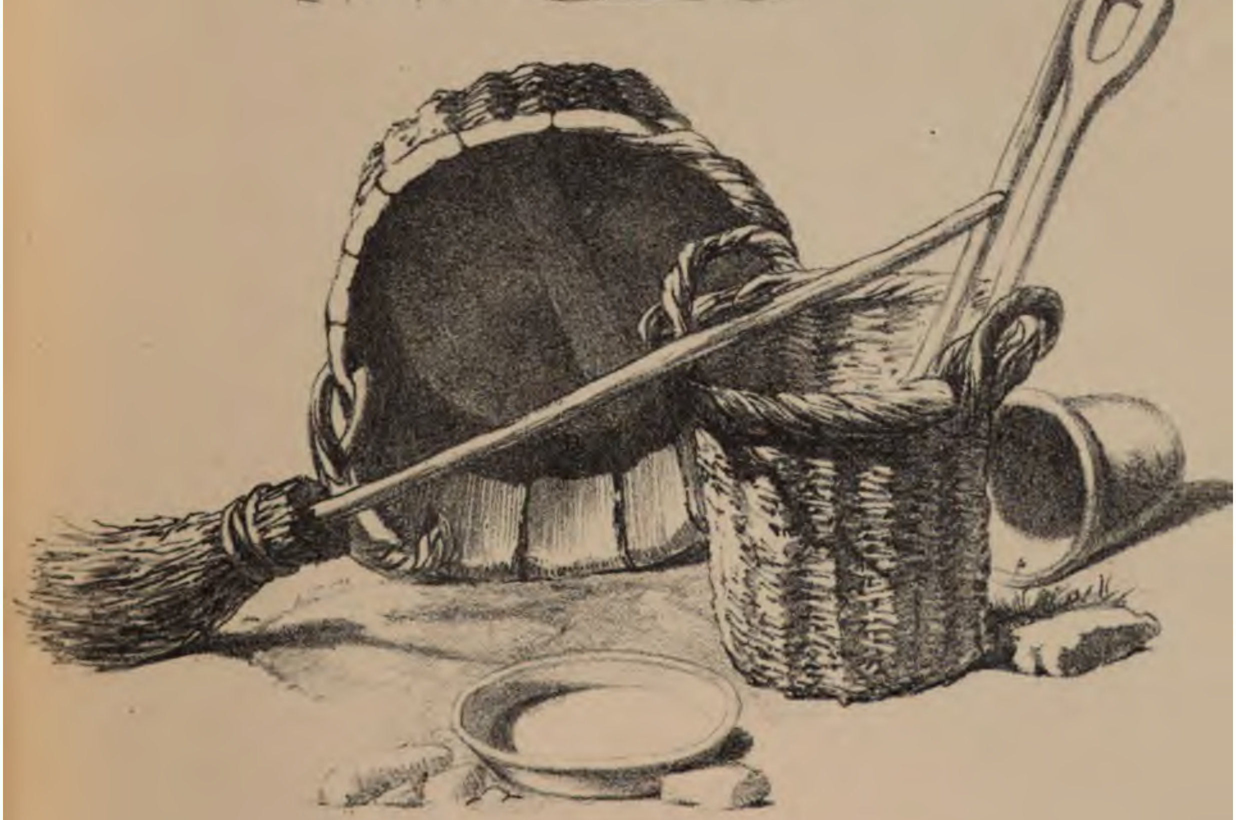


Lesson 78.

PLATE 12

Fig. 1

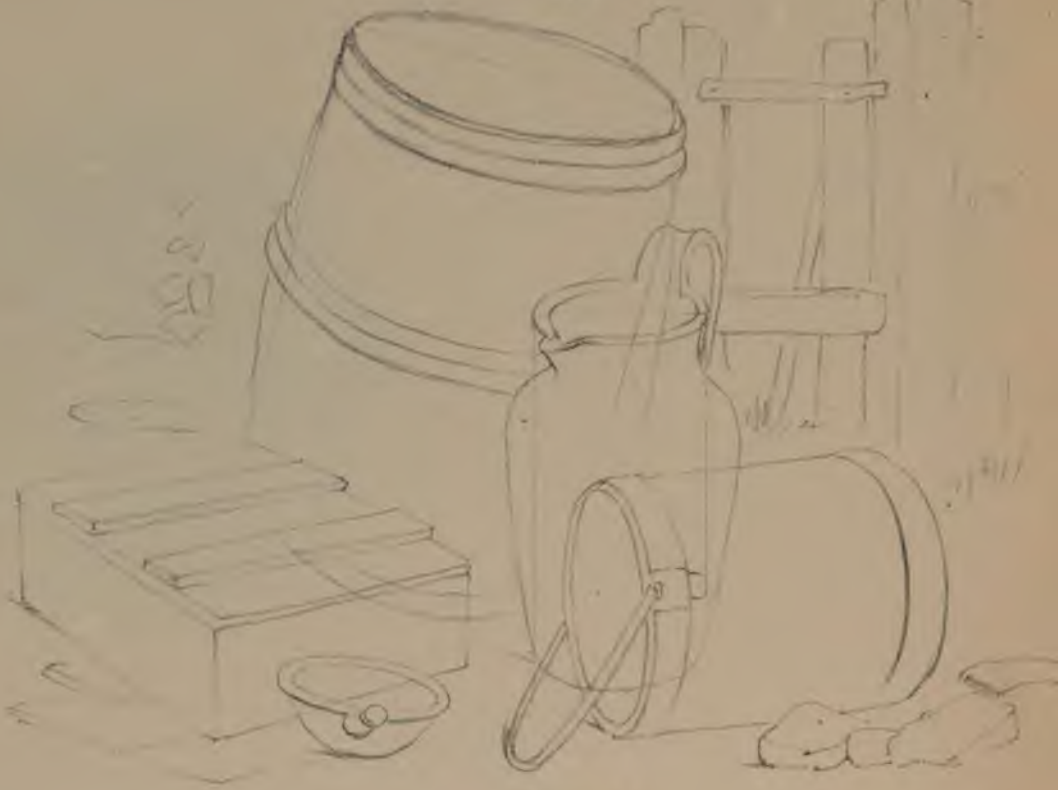




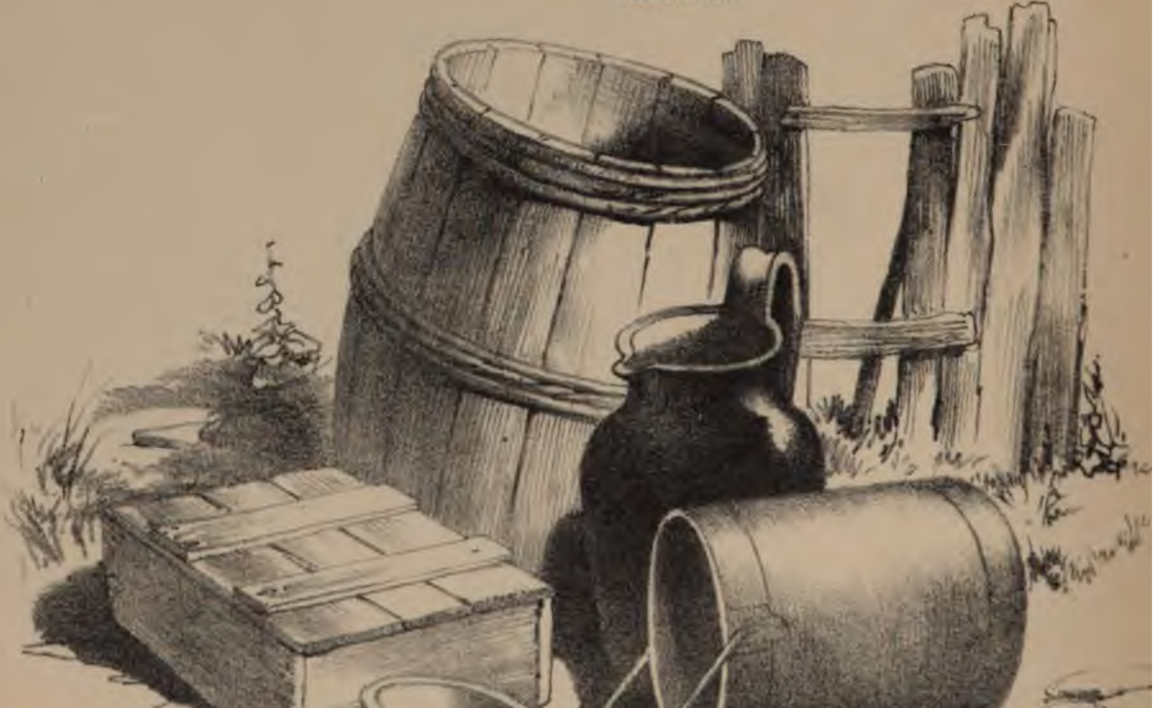
Lesson 79.

PLATE 13.

Fig 1



Lesson 80.



case, keys, &c., and observe their relative positions, it is probable that there will be nothing specially agreeable in the arrangement which they may assume. It will be obvious to you that in composition, or the arrangement of objects to form a picture, there should be principles to guide you. One of these is briefly given in Lesson 73; viz., that a composition should convey the idea of unity with variety. This will be seen in the various objects comprised in the present group. You may ascertain their accurate associations by drawing thin straight lines from one object to another, the lengths and inclinations of which you will find to be very various. If, in your sketch, you place the saucer half an inch lower than in the example, you will at once feel that it no longer belongs to the group,—in fact, that it is out of the picture. Observe, therefore, how important it is to preserve unity. (See also *Handbook of Drawing*, chapter 22.)

169.—When the objects in their separate forms have been correctly drawn, in right lines, and also correctly associated with each other, you may then shade them, adding the lines characteristic of their materials. Both this and the next Lesson must impress upon you that the shadow which is cast by one object on another, is always darkest at that part where it is in immediate proximity to the object which casts the shadow, and that this shadow, if it passes over objects of irregular surface, always assumes the irregularity of such surface, and exhibits in proportion less truly the form of the object which casts the shadow.

170. If your drawing when done appears less satisfactory than your example, you will find, on examination, that it is because these principles have been less rigidly observed.

LESSON 80.

171. The auxiliary lines on which this Lesson is constructed you will best understand by reference to Fig. 1. When drawing the head, hoops, and base of the barrel, the openings and bases of the pitcher and can, it is only necessary for you to refer to, or to remember, previous Lessons, especially Lesson 64. The shaded sides of these objects illustrate what you have learned in previous Lessons on light and shade. The small shadows, such as those of the hoops on the staves of the barrel, must be attended to as scrupulously as the larger shadows.

172. Carefully exhibit the gradual merging of the lights into the shades, and the clearly-determined edges—indispensable to the shadows.

LESSON 81.

173. As several of the stones are not on a horizontal plane, you cannot conveniently sketch them with vanishing points, therefore use the instructions contained in Lessons 3, 4, 5, 6, and 7, Section I. You must make your sketch of them first with light and straight lines, and as though they were transparent. Do not proceed to shade till you are satisfied that you have obtained correctly the forms and arrangement of every object. Begin with the front line of the nearer stone, then the remaining lines forming it. As all the other stones are drawn in relation to this, a slight error here may throw all the drawing wrong.

174. In examining whether your sketch be correct, you should, by means of imaginary horizontal and perpendicular lines, again compare the relative places of the various corners.

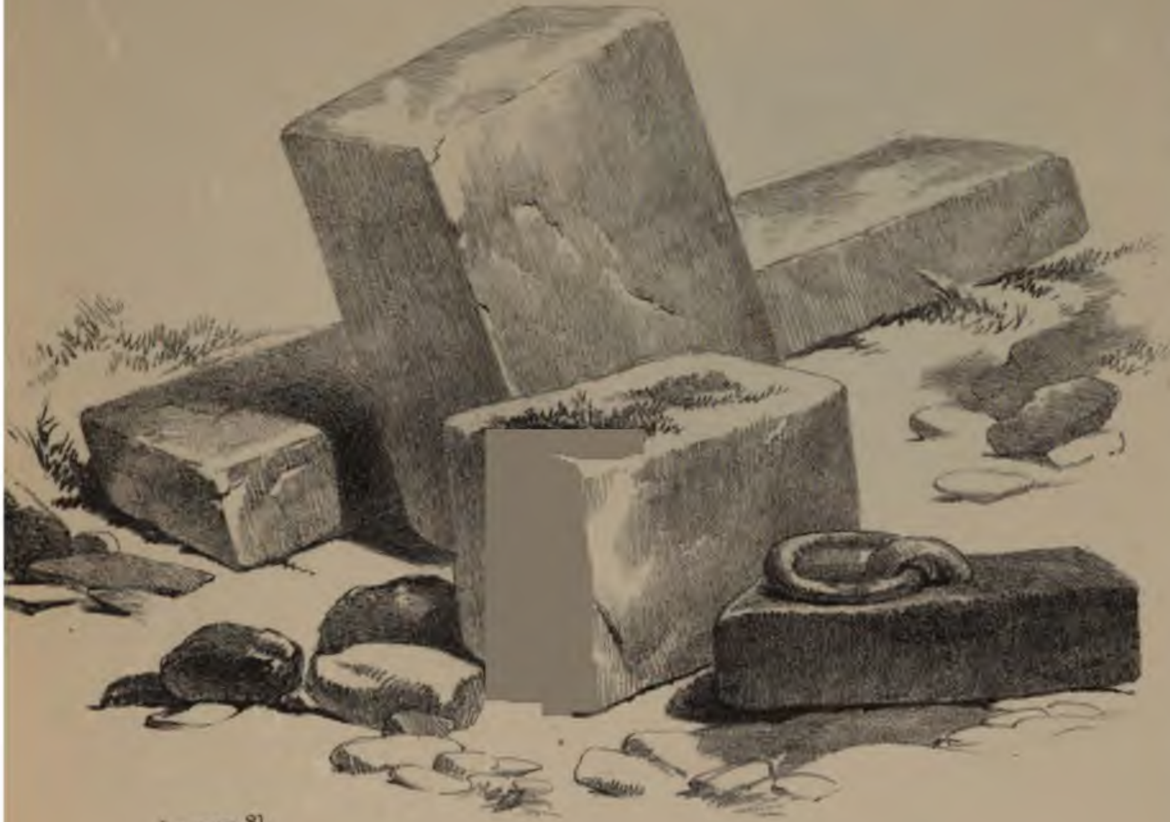
175. Further observe, that, although objects may not be on a horizontal plane, all retiring lines which are parallel to each other in nature appear to converge towards one point.

176. If, after having thus examined the sketch, it be found correct, you may complete it with the shading, following the example given, but bearing in mind the importance of expressing the hardness of the material.

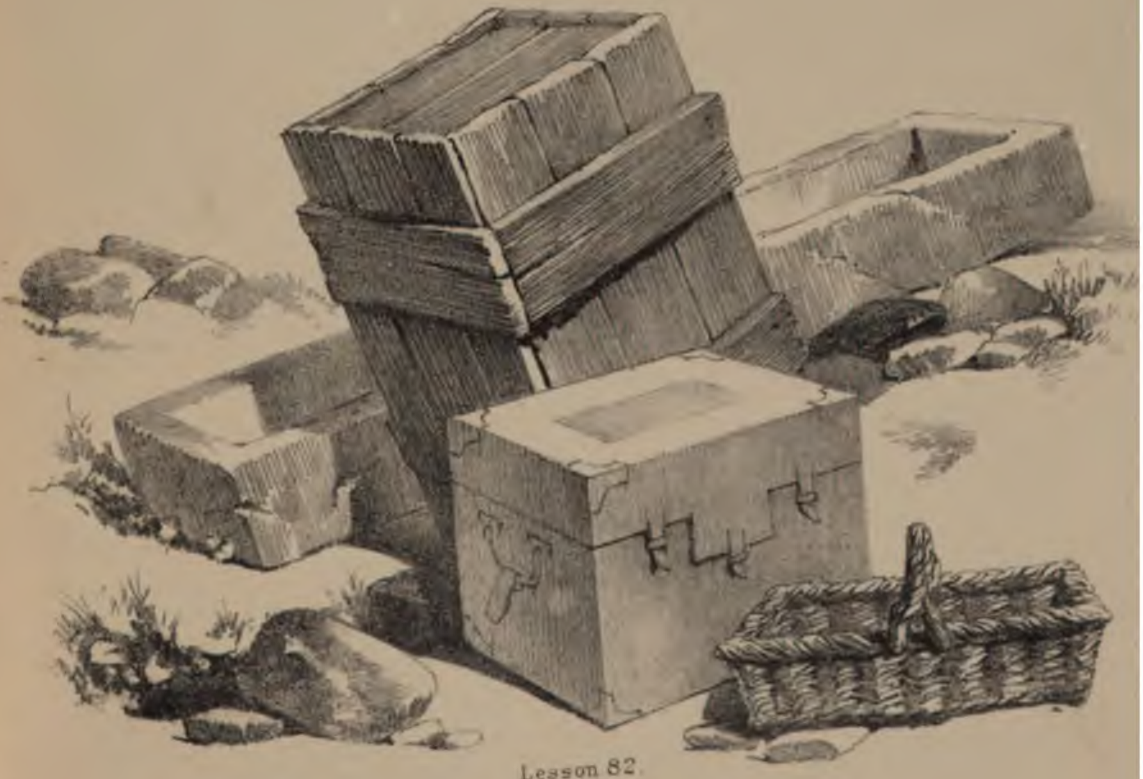
LESSON 82.

177. This Lesson has been given to afford you additional practice of the preceding Lesson, and to show you that what you there learned is of general application; and also, that whilst you learn to draw one object correctly, you are attaining the power to draw many. If, therefore, the previous Lessons have been thoroughly learned, and the instructions derived from them applied to it, not another word will be required to aid you in completing this. You make the light sketch for this Lesson as you did for the last.

PLATE 14.



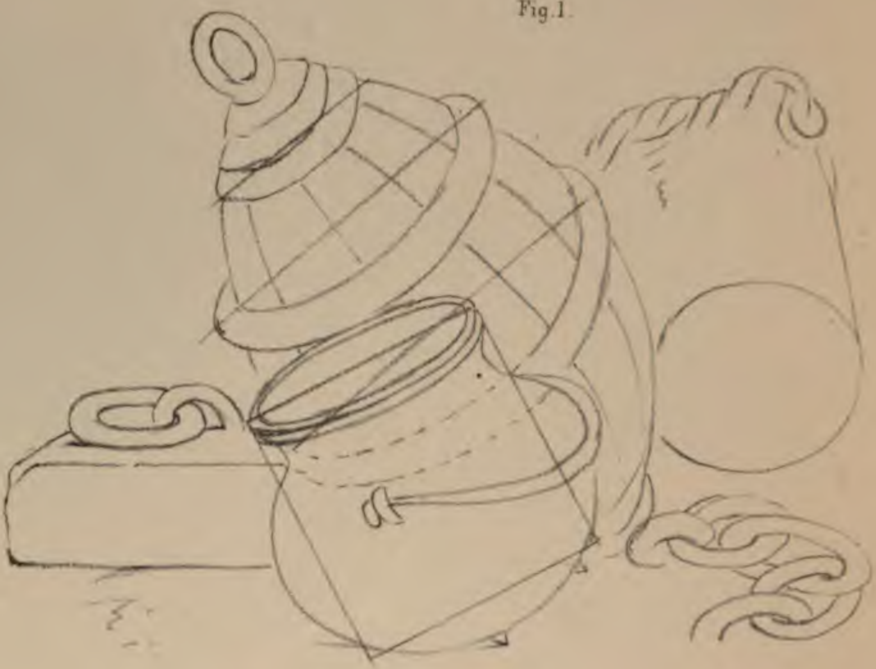
Lesson 81.



Lesson 82.

PLATE 15.

Fig. 1.



Lesson 83.

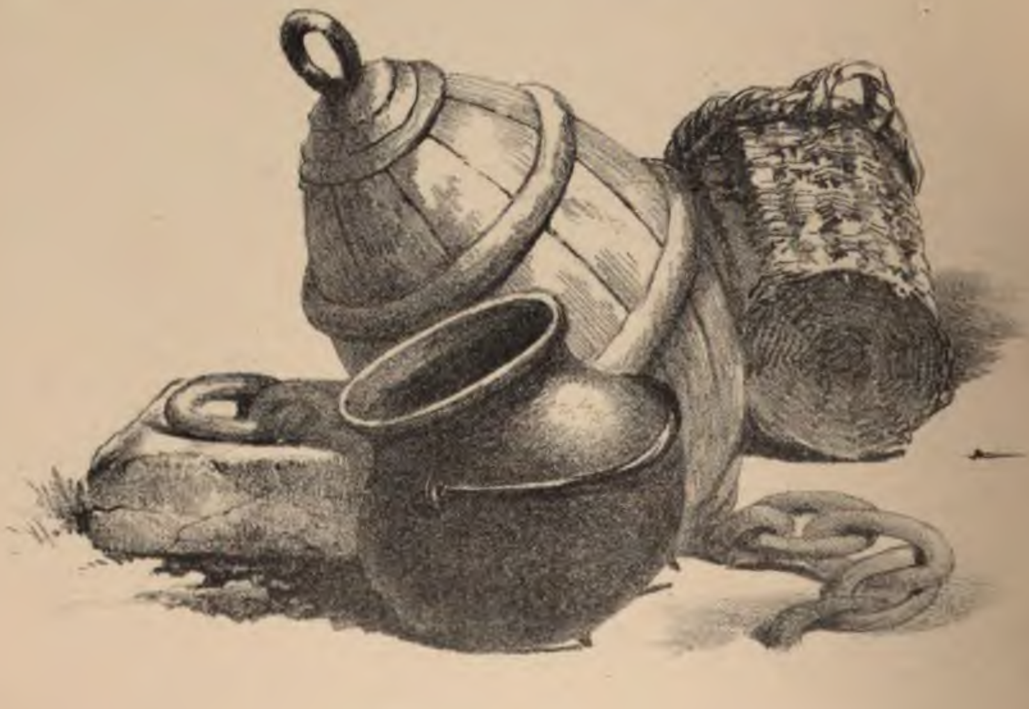


PLATE 16.

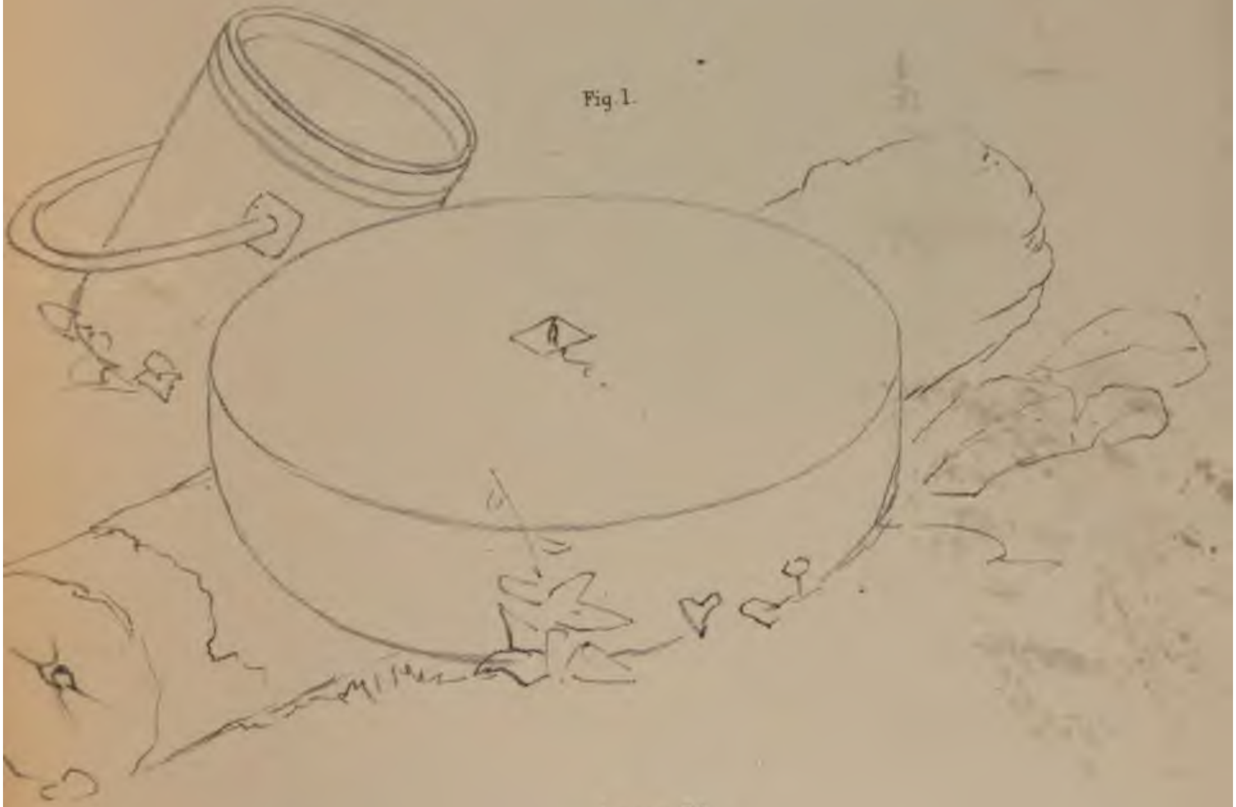
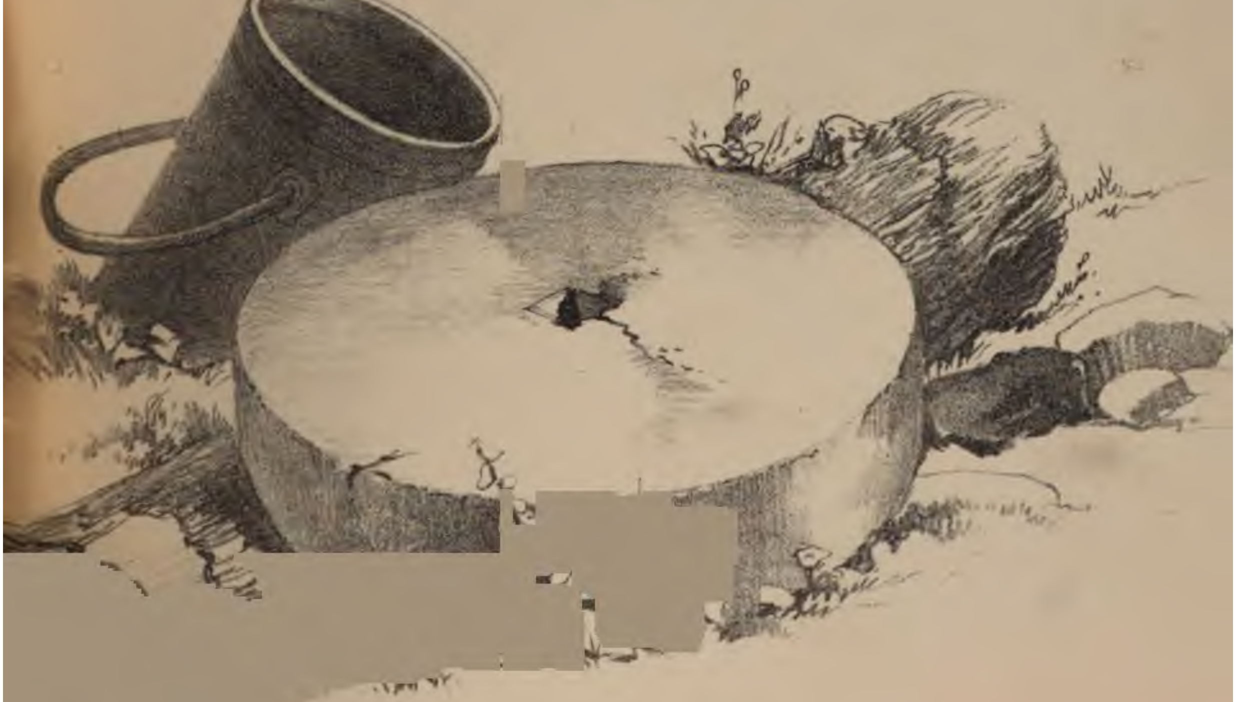


Fig. 1.

Lesson 84.



LESSON 83.

178. Few auxiliary lines are here given, since by this time they should not be required. The objects must be lightly sketched, as though transparent.

179. In shading this subject, as well as the next, aim at conveying the idea of sunlight; this is to be done by keeping the shades carefully graduated, and the reflections from other surfaces very perceptible. Especially mind the reflection on the left side of the buoy, pitch-kettle, and one of the chain-links; and have the shadows very clearly defined.

180. **On Sunlight.**—If you keep the light parts white, the shades light where there is much reflection, and the shadows clear and strong, you cannot fail in expressing the idea of sunlight.

LESSON 84.

181. **Experiments to be made.**—You can hope for no progress unless you understand the laws of light and shade. Go into the sunlight, and, placing your pencil upright, allow the shadow from it to fall first on a perfectly flat surface, and then across your fingers. Vary their position, watch the varying form of the cast shadow, and trace the truth of the observations which have been made to you, applying not to any particular instance, but to all objects by which you are surrounded; all will furnish you with additional proofs of their universality. The power of *observing* nature truly is the first and indispensable step towards a truthful representation.

182. In this example you will have further opportunities of practice.

LESSON 85. Concluding Lesson.

183. By the study of the preceding Sections you will have learned those principles on the knowledge of which depends your power to draw objects correctly, and also those universal laws which belong to light and shade; and by what is

shown in this Section you will have learned how to obtain the relative association of many. You will find how true these remarks are, by observing that I have now but a few questions to put to you, in order to ascertain if you possess the knowledge it has been so far my object to impart.

184. This Section has brought to you few new facts and principles, but it has produced new evidences of their truth and universality. These have been illustrated in various familiar objects. It is now only necessary for you to look around. Every apartment—that in which you study—is replete with objects which are, equally with those Lessons which I have supplied, illustrative of the principles you have learned, and equally confirmatory of their truth. All are to you equally good Lessons.

185. Your attention has hitherto been directed to familiar objects, singly and in groups, in order that your eyes may be opened to see their varying forms, and your hand made skilful to trace them. If, therefore, you have done your duty to yourself, in thoroughly learning what has been put before you, you ought now to be perfectly capable of drawing any circular or rectangular object, and should exercise your acquired powers in drawing the like from your models or from nature, first singly, and afterwards, either in any accidental combination you may see, or in groups of your own or your tutor's arranging.

186. **Drawing from Nature.**—It is important to you to take such objects as constitute the Lessons in this Section, and, having grouped them in a similar manner, in combination with towels, pieces of linen, bottles, pieces of wood, &c. &c., draw them, taking care that they are lighted by the sun, or, if in an apartment, by as strong a light as can be obtained.

187. It is only by these attempts for yourself that you can prove whether you have actually acquired the knowledge and power these 'Lessons' have so far been intended to impart. If you are still unable to draw similar objects from your models or from nature, it is manifest that your Lessons require to be re-studied. Be sure there is something which you have overlooked, imperfectly comprehended, or misapplied; therefore, with care set out again.

188. Having the ability to draw what you find in-doors, you are prepared for the study of what is to be found out-of-doors, and on a larger scale, and to this your attention will be directed in the following three Sections of the 'Lessons.'

189. When attempting to draw objects such as tables, sofas, &c., you must not suppose that you are first to draw either a cube or parallelogram, in order to produce the form desired. Having properly studied all your Lessons, you ought now to have acquired sufficient power to do so without such elementary aid.

190. Most rectangular objects are cubes, or varieties of the parallelopiped; for this reason I have employed these solids as bases, on which to impart to you a knowledge, not only indispensable to their correct delineation, but which, from being universally applicable, will furnish you with some regular system of study, and enable you to judge of the correctness of your delineation. *Just in the same way as a knowledge of the rules of syntax is indispensable to the correct construction of language, so also is a knowledge how to draw these two forms indispensable to the correct drawing of all rectangular objects.*

191. I have endeavoured to teach you, by a simple system, the means by which you may accomplish almost all you could effect were you to follow the science of perspective through all its labyrinths and intricacies; your progress is thus greatly facilitated and expedited.

LESSON 86.

1. Under what circumstances do you see a circle of its true form?
2. When does its apparent form differ from the real?
3. What form does it then assume?
4. When does it appear only a straight line?
5. Show that you understand what is meant by a circle on a horizontal plane.
6. Show that you understand what form circles appear to have when above or below the eye.
7. Show how you may draw accurately, by rule, a circle when seen obliquely.

SECTION IV.

LESSON 87.

192. **On Art Study.**—It is at this point that you enter on the study of what is more properly called Art. The preceding Lessons have been principally confined to familiar and in-door objects, and to those of small dimensions. There is something beyond the mere description, by lines, of the forms which objects assume; we have not merely to impress the eye, but the mind, with their characteristic qualities, and to raise on it those sensations we experience when looking at them in nature. Thus, after having drawn the form correctly, you evince your talent by adopting any method which shall explain the nature of what composes that form, whether new or old, ponderous, rigid, or rotund, and whether it be near or distant. None of these qualities exist in the materials of Art, or in any method of using them. It is evident, then, that on your ingenuity, talent, and knowledge, must depend the degree in which you successfully depict them.

193. Those general principles which you have already learned, you must constantly bear in mind, as you will find them quite as important in all the subsequent Lessons as you have found them in the preceding.

194. This should tend to encourage you in the pursuit of Art, seeing that you are at all times learning lessons of universal applicability, and that the intention of your drawing well whatever has been hitherto put before you, is that you shall be able to draw *everything* well.

195. **On Structure.**—Whilst drawing your various examples, endeavour to understand the *structure* of the objects represented, and thus draw them structurally, which will greatly increase the pleasurableness of your work, by exercising your

mental faculties, and the better prepare you for seeing and depicting the like from nature.

196. The subjects of which this Section is composed are drawn at such dimensions as you may follow. As a general rule, after having sketched each subject by light lines, you must proceed to depict the form and character, in every part, by the outline, broad or narrow, dark or light, in every varied degree, such as you see indicated in each example, without regard to the shades and shadows which may afterwards be added: but not until you have first done the outline as I have described, and that as completely as if it had been your intention to make a drawing in outline only.

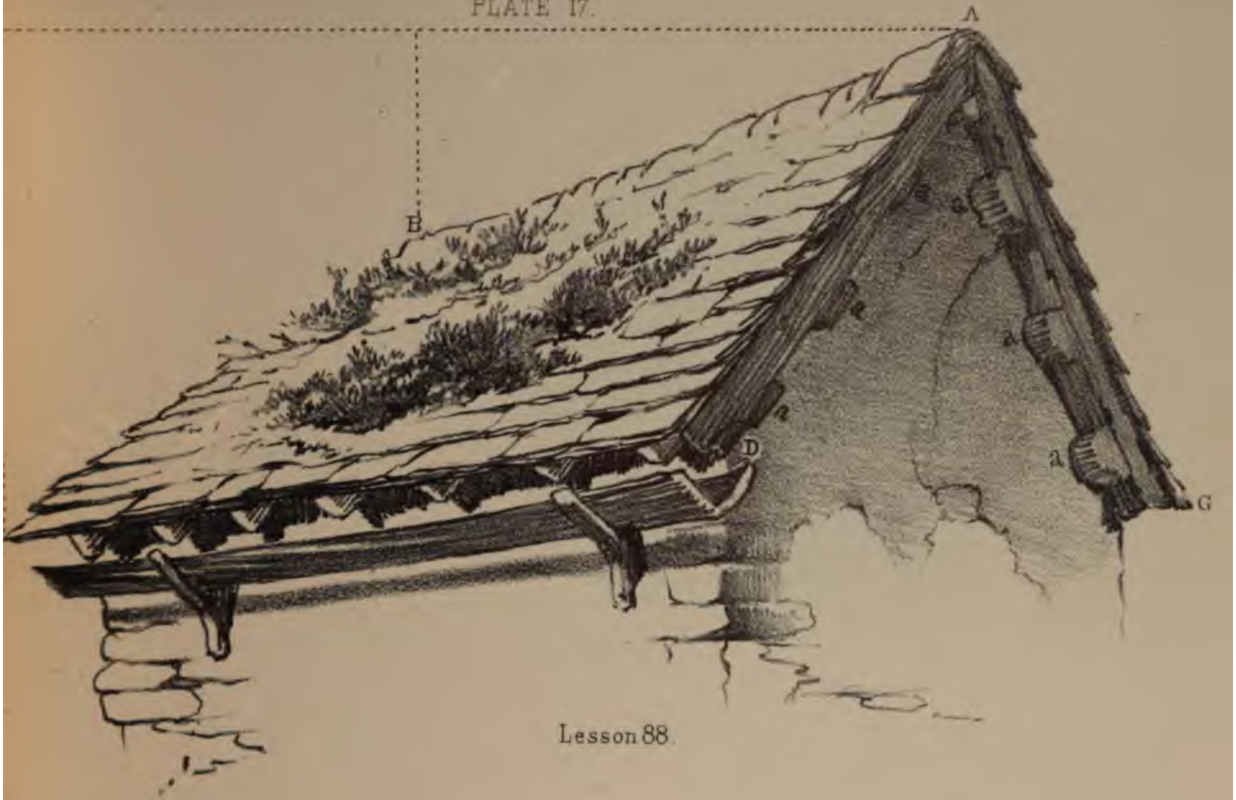
197. Take the greatest care to draw every line clearly and at once, and to prevent mistakes, observe the *intention* of every line before drawing it, and notice attentively their varieties of colour, from the faintest to the most intense. In this Lesson no drawing is given, for it is intended as preparatory to future work; the instructions in it should be *thoroughly well learned.*

LESSON 88.

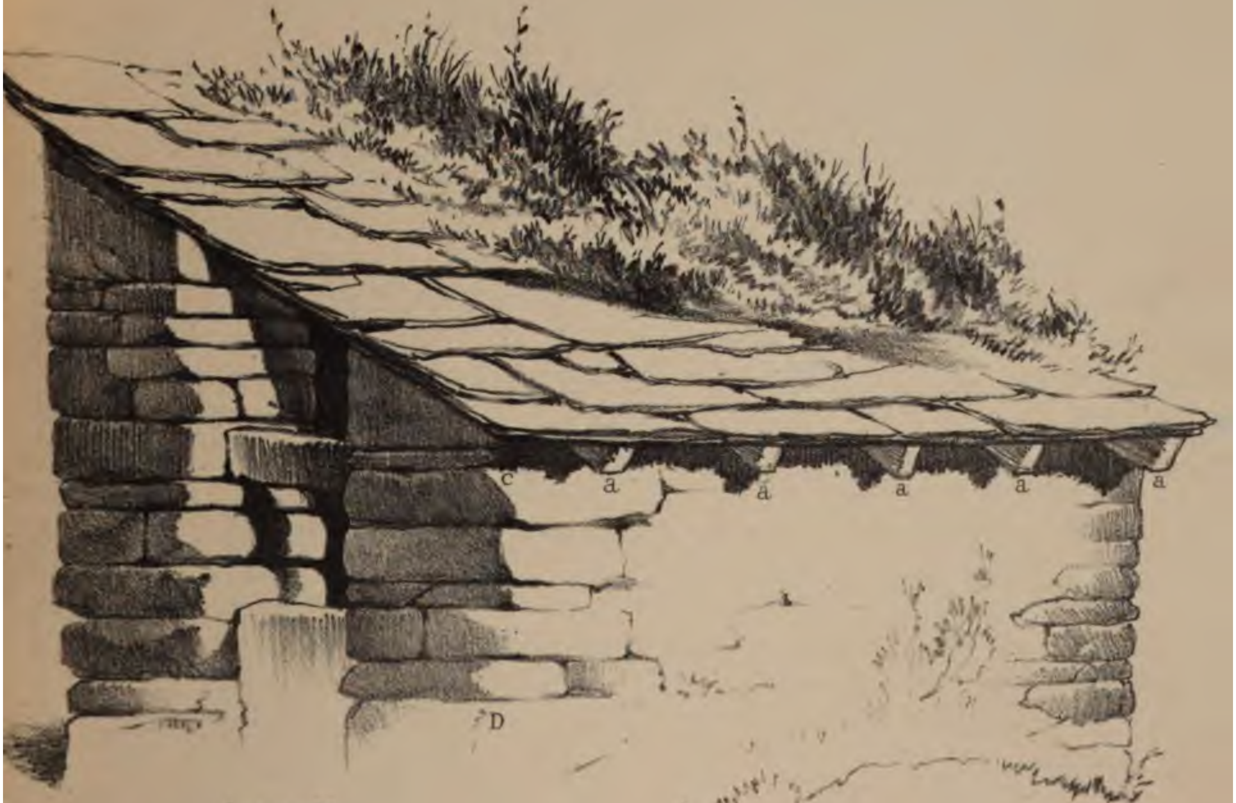
198. **Expression preferable to Fac-simile Imitation.**—This and the three following are especially important Lessons. This one consists of a roof composed of the ordinary English flat tiles. You might naturally imagine that it would be desirable to represent *all* these, but not so; it is quite sufficient if as many be represented as will give the idea that the whole roof is covered with them, and in such a manner as will convey the impression of its age or newness. Every line might be accurately copied, and no such impression be given.

199. In order to give the idea of hardness of slate, every line should have distinct and well-defined edges. Everything depends on this, for if they be indefinite or woolly they will fail to convey the idea of hardness, and therefore will be bad. The tiles must be most clearly emphasised on the edges **A B**, **C D**, and **A G**,—especially on **A D** and **C D**, because *the character of an object is usually most clearly seen on its edges.*

PLATE 17.



Lesson 88.



Lesson 89.

Moss is commonly formed on old roofs, and, as is here represented, is generally darker than the tiles. Care should be taken to preserve its peculiar curved form and softness, which contrast so well with the straighter lines and harder material of the roof and tiles; for it is this contrast of colour, form, and expression, which makes it agreeable to us. Below the eave **C D**, the ends of the rafters are usually seen, just as they are drawn in this and in the following Lessons. Between them, and immediately under the line of the roof, the shadow is always very dark, and should always be made darkest at the nearest angle **D**; this helps the eye to appreciate the proximity of **D** and the remoteness of **C**. On the line **A G** the edges of the tiles only are seen, and at **A** you will notice that a curved tile is represented; such are always placed over the ridge of the roof to prevent the rain coming in. In the construction of the roof there are other timbers lying in the direction of **B A** and **C D**; the ends, however, are only seen along the gable at *a a a*. Take care always to make the angles **C**, **D**, and **G** project well over the walls. Do not forget that you require the use of *your understanding* as well as of your eyes in learning Art.

LESSON 89.

200. **Art Proper.**—This Lesson consists of a lean-to roof, very common in Scotland and the northern counties; it is covered with stones or slates of irregular form and thickness. All the observations made to you in the last Lesson, and which you should now read again, apply equally to this. On this roof you have herbage, which, like the tiles and stones, is most characterised and most emphasised on its nearest edge. Let the lines everywhere be touched with great variety in depth and in form, so as to mark the varied length, the scantiness or the abundance, the compactness or the looseness, of the herbage. If you examine the lines which you see here, you will find that every one is drawn firmly, clearly, and distinctly.

201. Carefully observe the slates, the thickness of which you will find is first shown by a broad line, or by two narrow ones having shade between them, the lower line being made broad or narrow, and *very intense*, in order, either to show the shadow on another slate, or to represent the dark space seen between them. The lines representing the stones you must regard, less as lines of varied depth and thickness exhibiting their form, than as the dark spaces, broad or

narrow, which separates the stones from each other, from between which the cement has fallen or been washed away; thus, not a line, but a hole, a recess, or a space, has been represented, and the wall is thus made to appear old; some of the stones, such as *d*, seeming to be so loose as to convey the idea of their being easily removed.

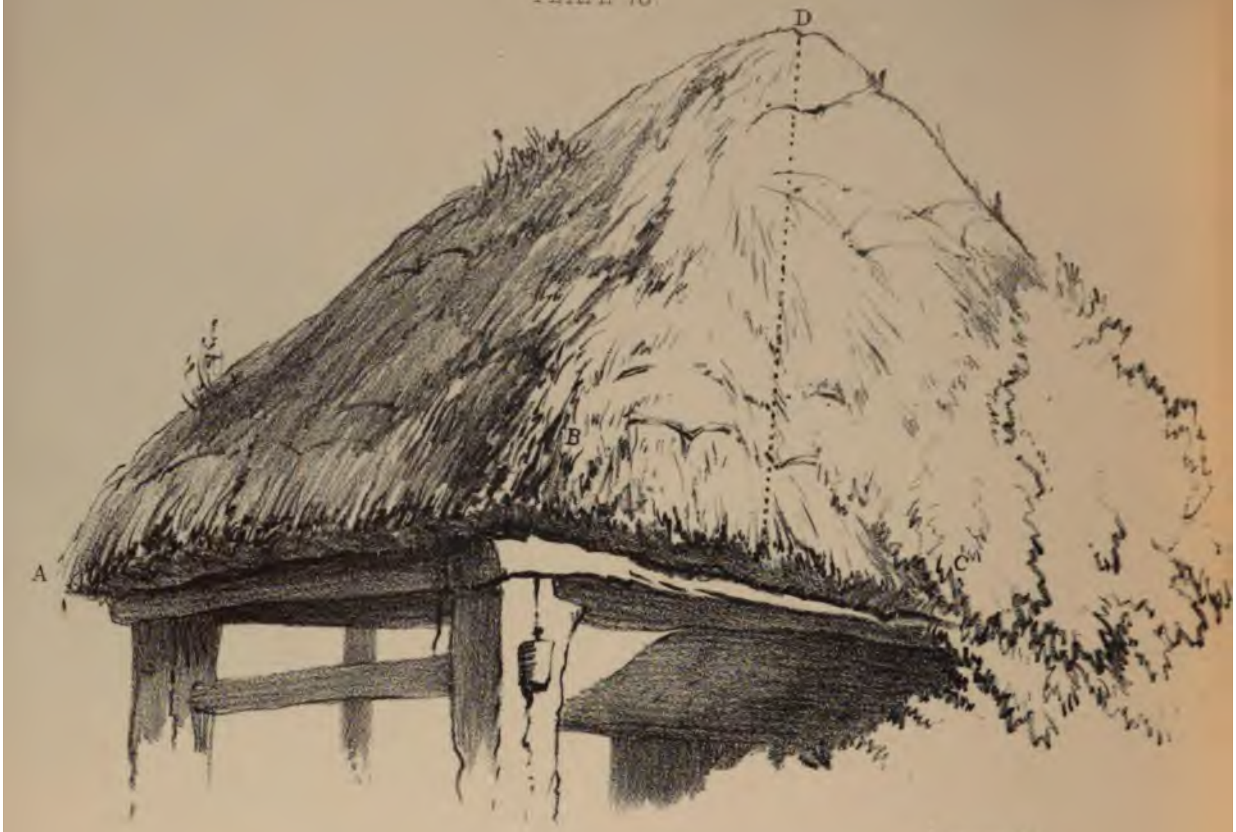
202. Again, you observe the appearance of going-in more emphatically portrayed in the recess or inner part of this shed. If you regard it attentively, you will see that it appears as if you could enter, as if it were more distant from you than the walls. Now this is just what is required: there, it is not actually more distant, but it must have the appearance of being so. To effect this receding of the interior you must now devote your efforts. To make the slates and stones look loose and hard, and the herbage flexible, *is just what constitutes Art, properly so called*, and to the attainment of these results the shadow must be made perfectly even, whatever its intensity, and the lines characteristic of the slates and stones around be firm and more intense.

203. Pay great attention to the shadows of the rafters at *a a*, where they fall on the wall, and to the character of the stones of the building at the angles, especially at the inner angle **C D**. There is no line here; but you are perfectly sensible that **C D** is a perpendicular angle. Mark well the variety in form and size of the stones at each outer angle, and where the lines are tenderly or emphatically touched. Here again, as with the tiles of the roof in the last Lesson, although no more stones are represented than those on the edges or angles, you are perfectly conscious that the whole building is composed of such as are there represented.

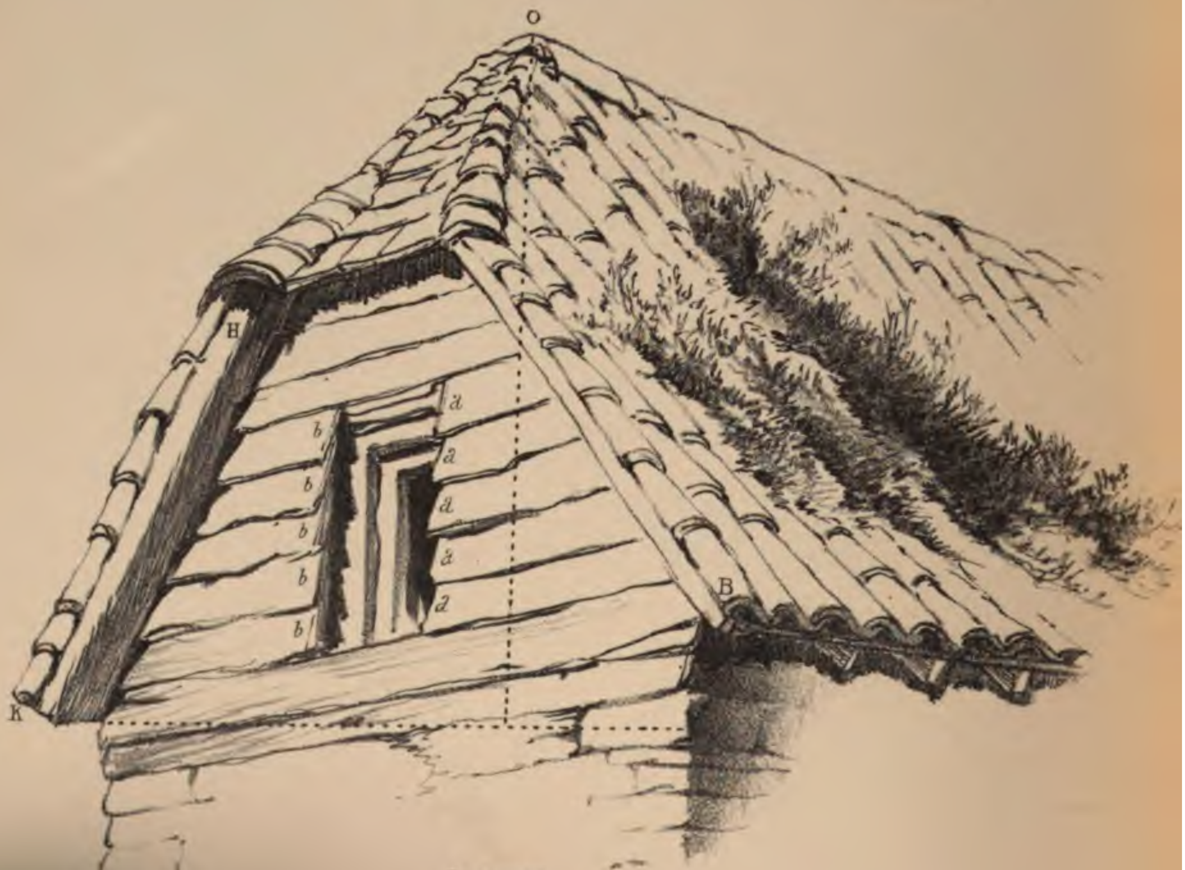
LESSON 90.

204. **Art Expression.**—Neither the last two Lessons nor this require any special instructions for drawing the forms. I shall, however, have to say a word about it, because the roof is here composed of a different material, viz., thatch, the characteristics of which are, that it always appears thick and weighty, and, when old, loose and of an uneven surface, arising from the loss of the straw in part, the growth of moss on it, and the yielding of the rafters, which have bent under its weight. Knowing these facts, you have to inquire whether they are portrayed, not only in this but in every case; and when your drawing is done, and you

PLATE 18.



Lesson 90.



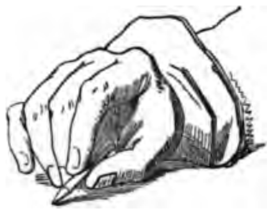
Lesson 91.

compare it, as you ought, with the original, you have to inquire, not whether your drawing has the like lines exactly, but the like *kind* of lines in every part as are *forcibly expressive of the like facts;* not whether nature has been *imitated,* but whether she has been *represented.* You could not know, nor would you care to know, how many straws, or tiles, or timbers, or stones, composed the building. You are therefore absolved from copying what you cannot know, or would ever be at the trouble to ascertain; but the nature, general forms, properties, and qualities of objects, being universally known and felt, it is these which must be represented to the mind, or there is no satisfactory Art.

205. **Character seen most at Edges.**—Observe that, as in your last Lesson, the character of the thatch must be given along the extremities or edges **A B** and **B C,** and that at the nearer angle **B,** and also on the post under it, the lines and shades must be darker and more emphatic. Whilst the lines and shade on the angle **D B** are greatly broken, they generally tend in the direction indicated by those letters, and it is here that you more effectively express the nature of the roof and more especially in the irregularity of its surface.

Little need be said on this Lesson, as the general instructions necessary to enable you to execute it have been already given in the two previous Lessons. The chief variety consists in the greater thickness of a thatched roof, and in the difference of character necessary to express it. The straws composing the roof are bound together by twigs of green osier, such as baskets are made of, and are placed crossways as they are here seen.

206. **On Holding the Pencil.**—A short pencil, held as in the woodcut, and allowing, not only the motion of the fingers, but of the whole arm, will afford great freedom, and forms of every variety may be comprehensively grasped.



207. The three previous Lessons, like Lesson 60, are very important to your success, and if you cannot clearly and forcibly carry out the principles they contain, you should draw them again and again from memory, until you feel that you have fairly mastered them. *You cannot reasonably expect success on other terms.*

LESSON 91.

208. No special instructions should be required in this example, which shows a mode of forming roofs with curved tiles: these must be structurally drawn, *i.e.* they should be represented so that they would appear capable of turning off the wet. The boards at the end of the building are called feather-edged boards, and overlap each other; this is shown at *a a*, and also at *b b*, but at *b b* their thickness is seen, together with the framework of the window, and both must be carefully noticed. Take care to observe the edge of the shadow which is thrown on these boards by the projection of the roof at **H K**; let it be very clear, well defined, and broken, so as to express the overlapping of the boards, and the consequent unevenness of the surface on which it falls. The line from **O** and from **K** will show the relative positions of the various parts. When a gabled roof is slanted, or cut off as at **O**, it is said to be 'hipped.'

LESSON 92.

209. The window which forms the subject of this Lesson differs in no very great degree from Fig. 1, Lesson 26.

210. As you have been taught, you should *always draw that which is large before that which is small.* For example, you should draw the boundary lines of a door before you attempt the panels or handle of it. Therefore, here draw the paralellogram **A B C D**, and divide it very lightly into six equal parts, for the upright divisions of the window, which are technically called ***mullions***, first placing **E F** in the middle, between **A C** and **B D**, as the easiest mode of making all the divisions equal. Draw the front lines of all the mullions with *single* lines, and then place the roof at its required distance, taking care that it projects at **K** and **H** over the sides **A B** and **G L**; then draw the corresponding projection at **M I**. Draw now the double lines of the mullions, showing their thickness in front; and *then*, on each side of these, others, showing that their thickness increases on the retiring sides, and then draw the small sloping lines each way, top and bottom. You will see that in **1**, **2** and **3** the glazing is done by reticulated* lines leaving the spaces white; **4**, **5** and **6** are left blank, in order to show more

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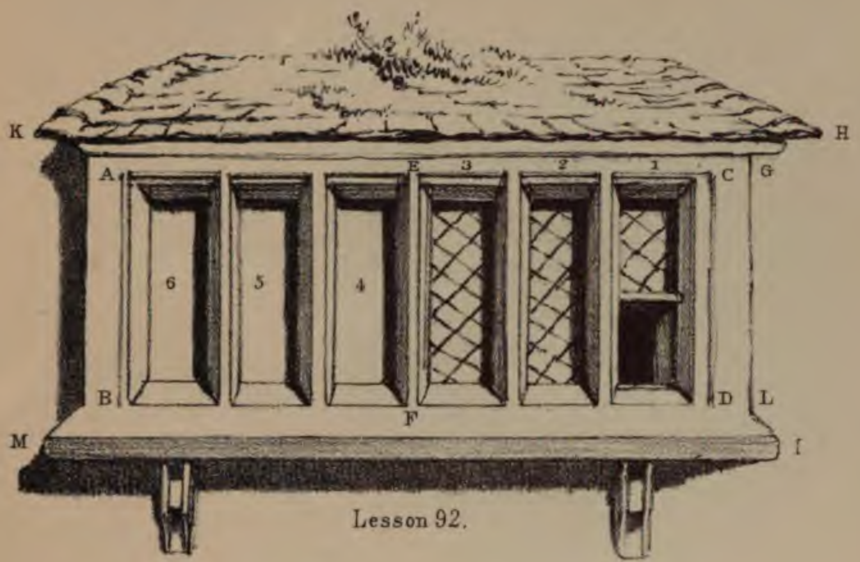
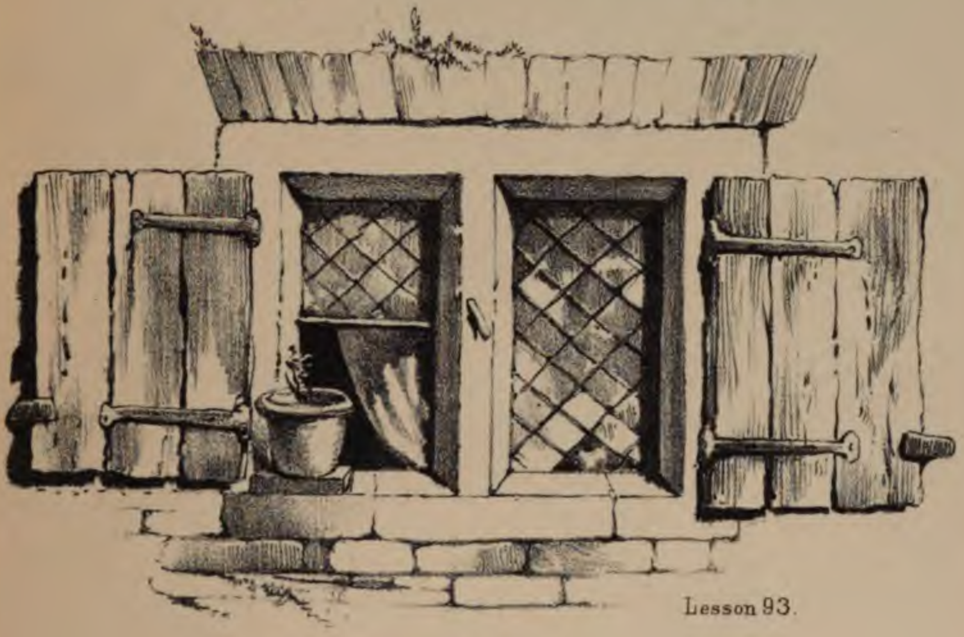
* Crossed in the form of network.

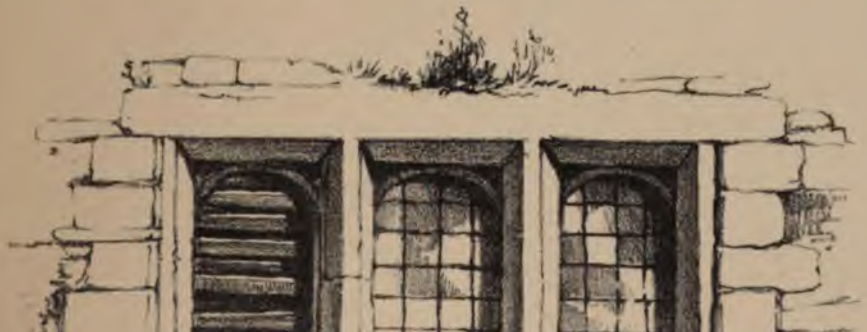
PLATE 19.



Lesson 92.



Lesson 93.



Lesson 94.

completely how the shadows of the mullions are thrown. They fall the same way on the glass. The form of the shadow at **K** and **M** must be carefully given as it exhibits the angle of the roof at **K**, and the projection of the base at **M I**.

LESSON 93.

211. The sketch of this window is very simple, still it should be *structurally* drawn, so as to give the idea that if the shutters were closed, they would cover the windows and fit to each other. The subject is given in order to afford you exercise in expressing the *character* of different materials. You have to denote the hardness of stone, the fibrousness of wood, especially shown when old, the transparency of glass, and its reflections, &c. The representing of material is most important, as by this means, almost as much as by their forms, you are enabled to distinguish one object from another.

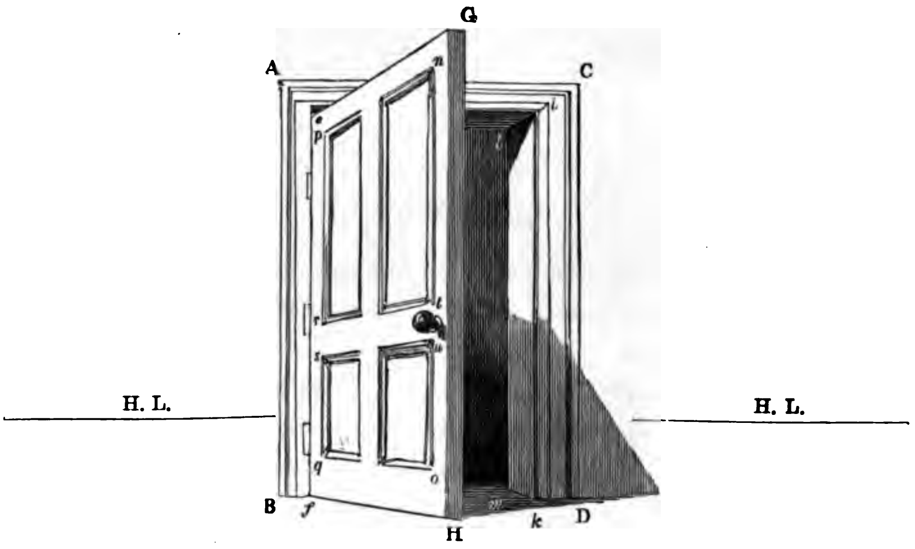
212. When glass casements of the kind here drawn are old, some portions bulge out and catch the outside light, and the reflections thus created overcome the transparency of the glass, causing it to appear opaque; other portions retire into comparative shade, and reveal the obscurity of the apartment inside. These circumstances are indicated by the shading that you see in the present example. Take care in your drawing that the shade which is to represent the inside darkness has a defined edge and appears somewhat distant. Look to the form and darkness of the shadows, and distinguish them well from the shades, which are not so deep.

LESSON 94.

213. The sketch of this Lesson is as simple as that of the last; the only difference consists in the division of the parallelogram into three equal parts instead of two. You must endeavour to carry out your instructions as regards material in this Lesson as in the last.

LESSON 95.

214. This Lesson consists of an ordinary room-door, and if drawn according to the instructions, will not be difficult. First draw the parallelogram **A B C D**, as

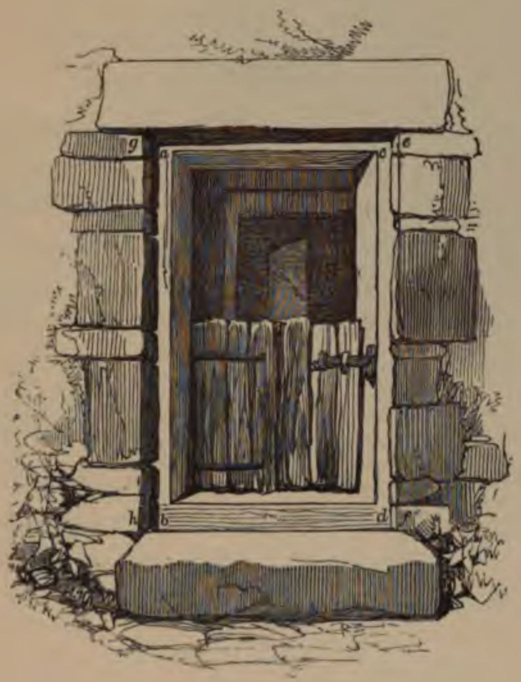


seen in front, and the smaller one *e f i k;* these will form the door-frame or '*casing.*' Now observe carefully the position of the front edge of the door **G** above the 'casing,' and draw the front edge down to **H**, or indefinitely. Next observe accurately the height of the eye **H. L.**, and from **G** through the corner of the doorway *e*, draw a line to the **H. L.**, which will give the vanishing point for all the receding lines of the door (as from *n t u o* and **H**), which can now be easily completed. It will be observed that the edge of the door **G H** being nearer to us than the frame or casing, appears considerably larger. The square divisions on the door are called *panels*, and the spaces between them *stiles* and *rails*.

Do not fail to draw a room-door from nature, so as to master this important Lesson completely.

LESSON 96.

215. This is an ordinary cottage doorway, with a wicket. It may be drawn larger than is here represented, or with pen and ink, after the outline is correctly made with pencil. It is only necessary to direct your attention to the framing of the door at *a b c d*, so that you may show the retiring lines at the angles which exhibit the inside, or what is called the return of it. Take care to make the upper



and lower edge of the wicket irregular, especially the lower edge, to show that the boards have been worn by violence or the influence of the weather. Observe also that these are neither straight nor of equal width, and that there are lines on them to show the grain of the wood. The interior is drawn so as to give the idea of an irregular apartment, and is shaded so as to convey the impression of the darkest part being most distant. *Keep all the edges firm and well defined.* The herbage on the left must be attentively drawn. Notice the gradual increase of the leaves from the upper to the lower part, and also the shade underneath them, which is darkest just at the corner of the step; and notice, also the shadow on *a b* from the edge of the stones at *g h*,—mark its depth, and see where it is broken by the light admitted between the broken angles of the stones.

216.—**On Observing rightly.**—It may seem unimportant to notice what will doubtless to you appear trifles; but *it is on the power to observe* these that the power to draw depends. I wish you to understand that *what has been rightly done must have been rightly observed,* and that a satisfactory and pleasing result is not the fruit of genius but of attentive observation.

LESSON 97.

217. Draw first the oblique square **A B C D** on the slanting line for the roof **E F**. As this dormer window has what is technically called a *hipped* roof, the point **O** will not be over the middle of the square, but more to the right. What has been said on the drawing and construction of roofs, their shadows, and those of the ends of the rafters where the tiling is to be characterised, and where most emphatically, is equally applicable to these Lessons, which are composed of two dormer or roof windows, represented as if above the eye, which is the view you generally have of them.

218. In this Lesson the foreshortened tiles on the ridge of the roof at **A O** are very plainly shown, and each should be drawn with its distinctive peculiarity. *The depicting of the varied character of objects is most important, in fact there can be no true Art without it.*

LESSON 98.

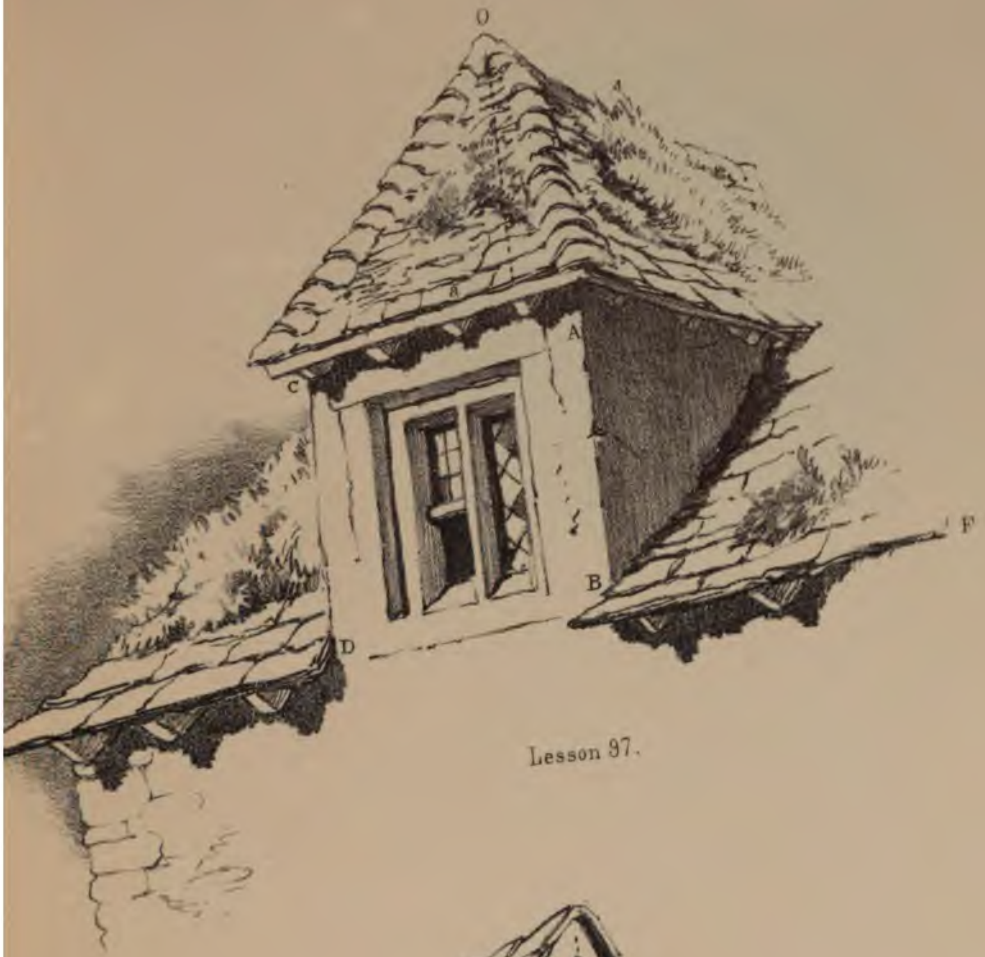
219. After having accurately drawn the general form of this Lesson, you must complete with the shades and shadows, paying attention to the form of the shadow thrown across the mullions at *aa* by the weather-board above them, so as to express their forms and proximity, and the flatness and distance of the glass,—remembering always the laws relating to the shape of cast shadows (¶ 105).

LESSON 99.

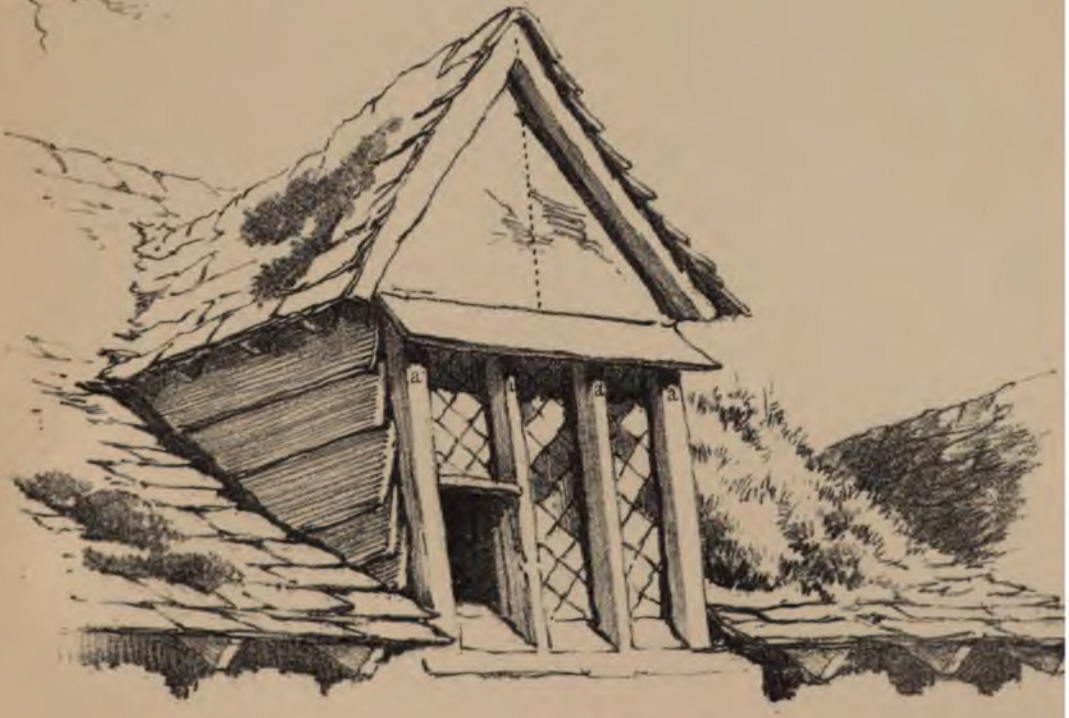
220. This is a window of more architectural pretensions than those already studied, and is shown as if much above the eye and in perspective; it is thus that it would be generally seen. Draw the line **A B** of any length; fix the inclination of **A C** and **B D**, by which find the V.P.; and proceed according to what you have learned in former Lessons.

221. It must be here observed that the retiring side of the mullion **E F** is now very unequally seen,—scarcely, if at all, on the left, and entirely on the right.

PLATE 20.

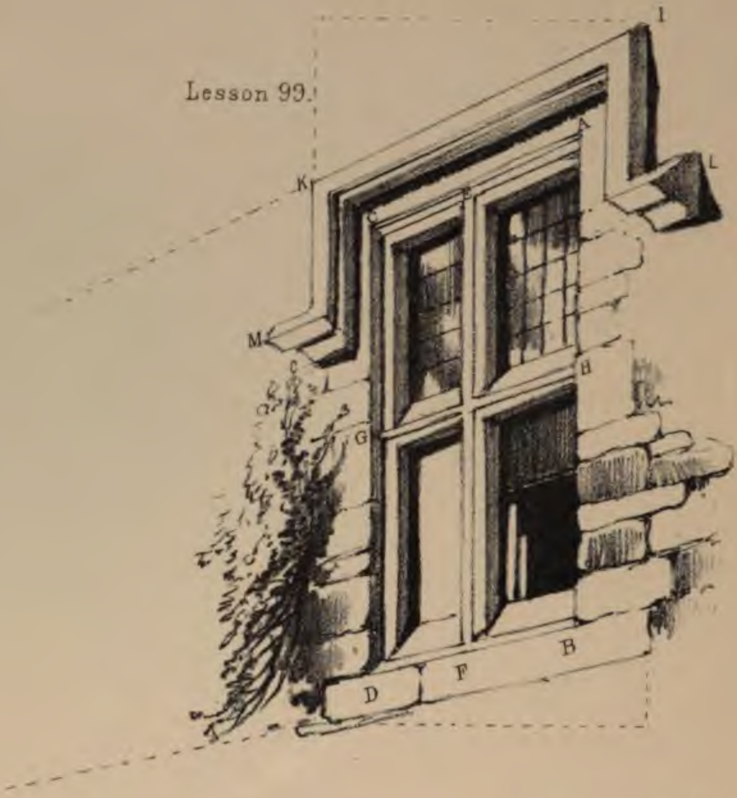


Lesson 97.

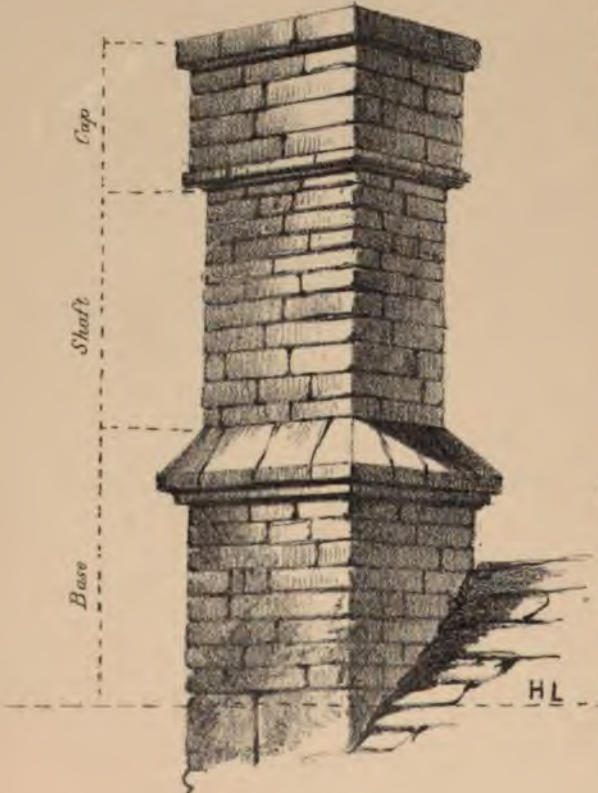


Lesson 95

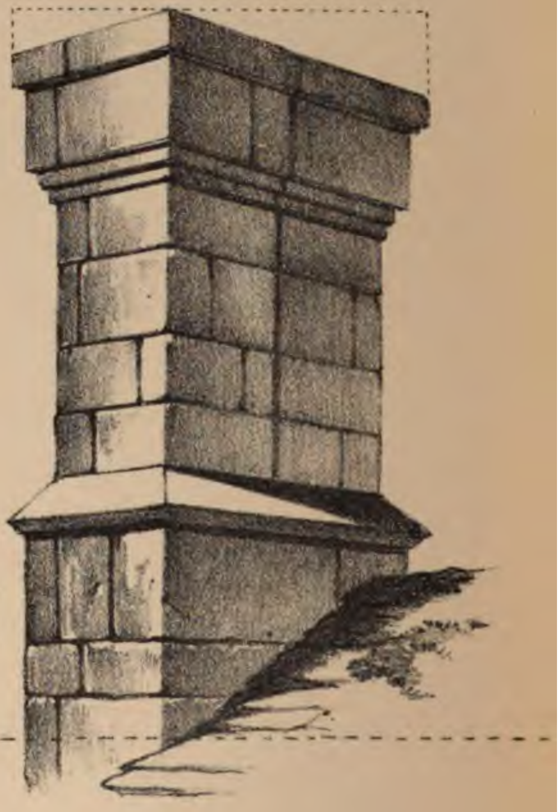
PLATE 21.



Lesson 99.



Lesson 100.



Lesson 101

The division at **G H** is technically called the *transum,* and is formed like the mullion. The *sill* **B D**, on which the mullion rests, is made to slope, and so is the transum, that all may throw off the rain and moisture. The *label* **L I K M** must be carefully drawn, so as to show the moulding of it, and its retiring lines, as well as all others, must tend towards the V.P., which is below and to the left side.

222. The importance of the V.P. will be better appreciated when you are reminded that in this window there are, long and short, upwards of thirty retiring lines, and the inclination of each of these is determined by it.

LESSONS 100 and 101.

223. The chimneys constituting these two Lessons have been given to show you the method of drawing such as are ordinarily built in England; and are intended to illustrate further the necessity, when drawing architecture, of always using vanishing points, and marking with great care the projection of the mouldings beyond the general outline.

224. Both are alike in their several divisions of *bases, shafts,* and *caps.* These divisions are separated by mouldings. The perpendicular lines of the shaft in each chimney serve to show you how much the mouldings and base of each project beyond it. By the comparative sharpness of lines showing the divisions of stones, and by the neatness and precision of the angles, you may denote newness; and by the broader divisions and broken condition of the angles, you depict the comparative age and wear of a building.

LESSON 102.

225. You have here one arch within another; the outer one must be first drawn, and for this you prepare a skeleton form precisely similar to Fig. 2, Lesson 20; taking, as in that, **F** and **E** for the springings of the arch, of which **A** is the keystone, and from this the lines for the stones lean each way, exactly towards a point placed in the centre between **F** and **E**. After having drawn this outer line, you draw one within it, to show how much the inner arch recedes.

226. To draw the inner arch, proceed with it as with the outer one, and take the upper line of the beam which crosses it at its springings. Draw the beam, and form the upper lines of the doors in reference to that, and the lower lines by observing that they slope in exactly contrary directions. The receding lines under each arch, and on the inner sides of the jambs, tend towards the V.P., which is to the left of the drawing. The top and bottom of the open door will not vanish in the same point, but on the same level nearer the drawing. The receding lines on the front face of the jambs will vanish at a considerable distance to the right.

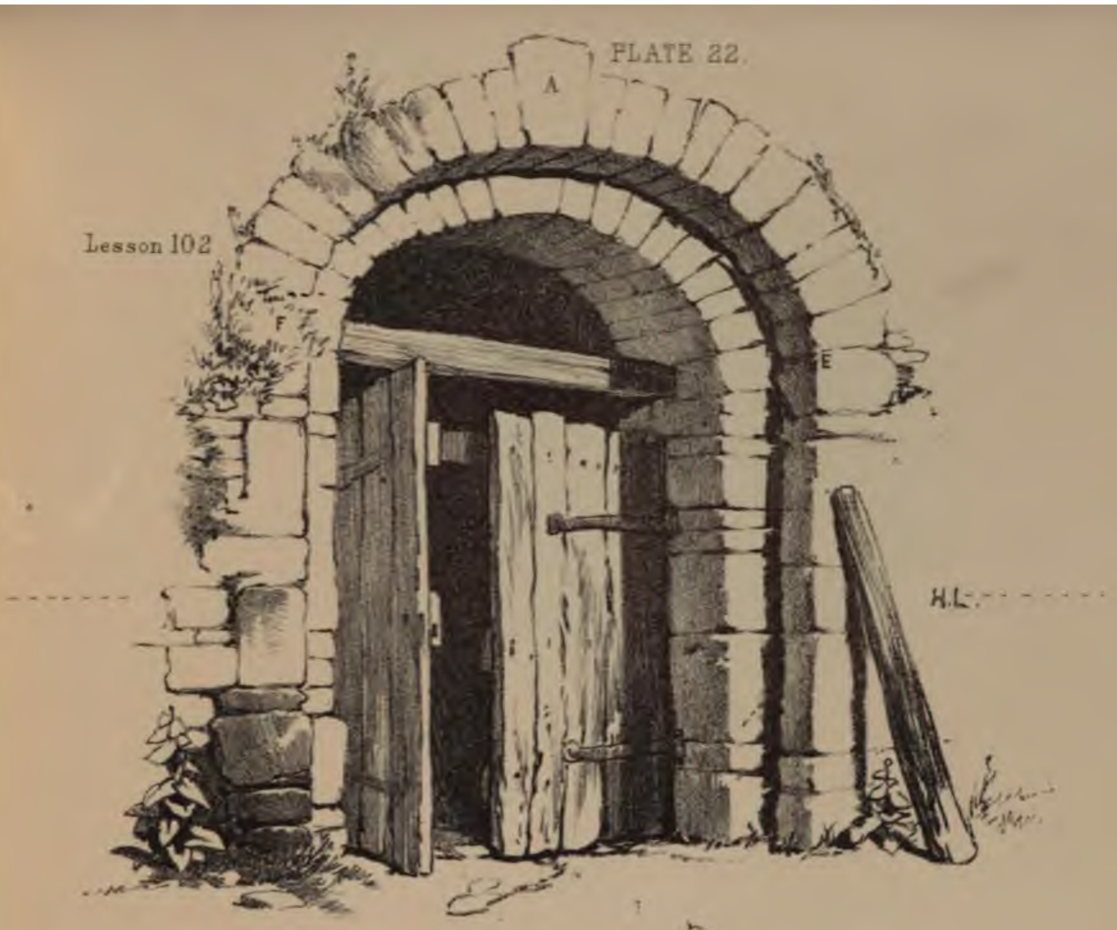
227. **Definiteness of Purpose.**—The essential import of this Lesson is to convey the idea of an old wall, and that you can enter the apartment,—a waggon-house. These ideas are due to the evenness of the shade, the entire absence of any lines or irregularities in its colour, and equally, if not more than all, to the sharpness and clearness of the lines everywhere, whether of the arch, the doors, or the cross-beam, to which the shade comes close up. *Seek to convey these impressions, not to copy every line;* and take care to preserve the *forms* of the shadows. In all your work *have a clear definite purpose,* when you draw shadows *think of and mean* shadows, and when putting in interstices *mean* interstices or holes, and not clever pencil-marks.

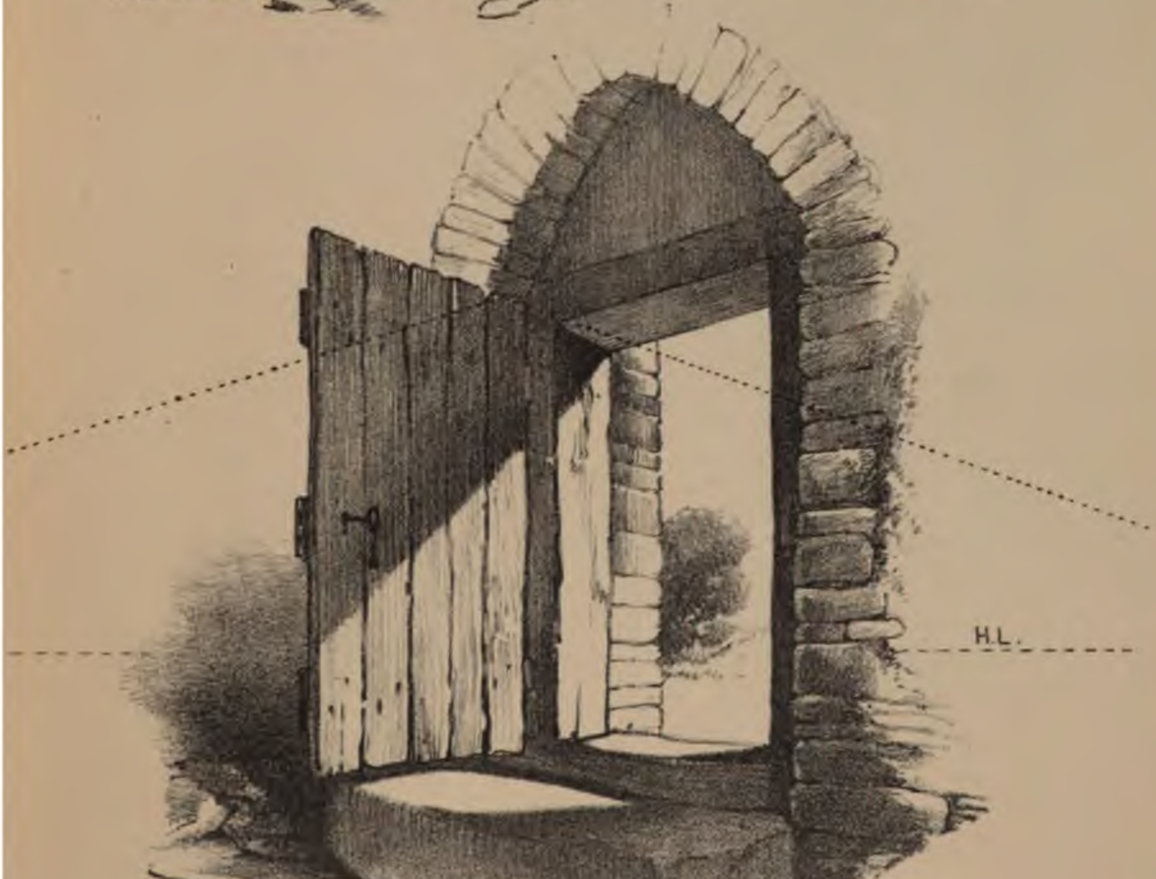
LESSON 103.

228. In this Lesson the view of the doorway is from within the apartment to which it conducts, and this is in shade; but the upper part of the door and the door-post are under shadow from the upper part of the door-frame, and the steps are in part under shadow from the wall on the right, which is itself in shade. The outline of this completely shows how the corners of the stones of an old wall are broken away. On looking at both these shadows it will be seen that they are darkest just where the light is brightest, as on the door-post and the door-sill. In making the sketch for this subject, you will observe that the V.P. for the door is to the right on the H.L., whilst that for the doorway is to the left, of the drawing. The two vanishing points will determine the inclination of all the retiring lines; do not mistake them for the converging lines round the front of the arch, above the doorway; these go towards the two springings of the arch.

PLATE 22.

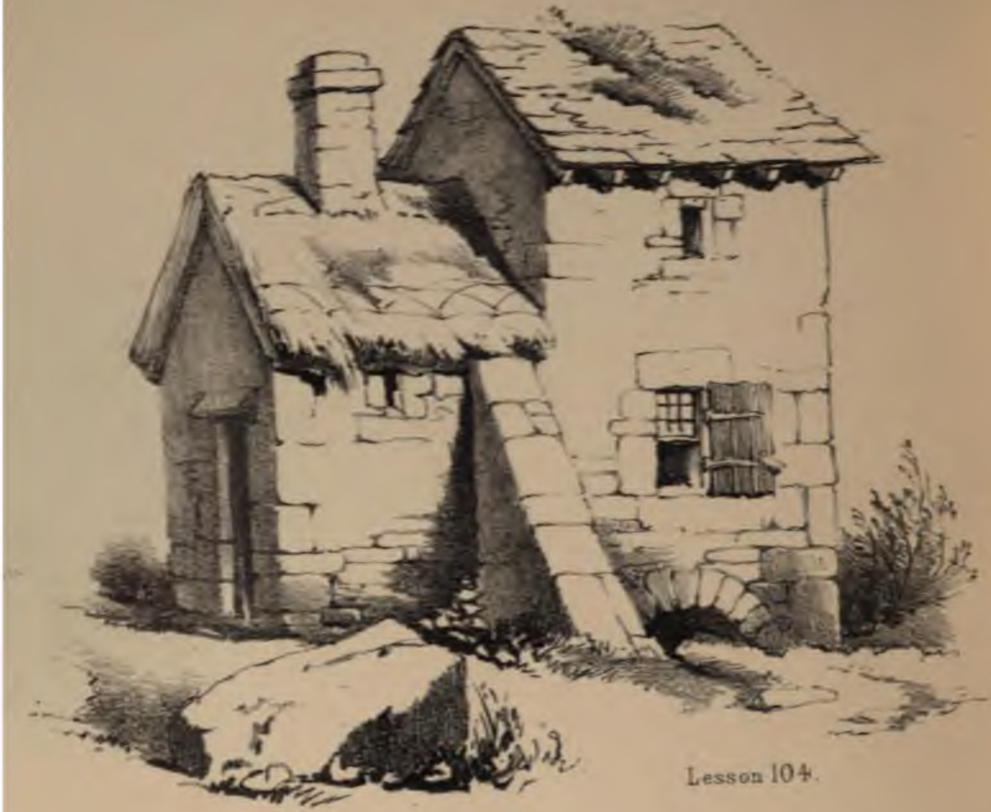
Lesson 102



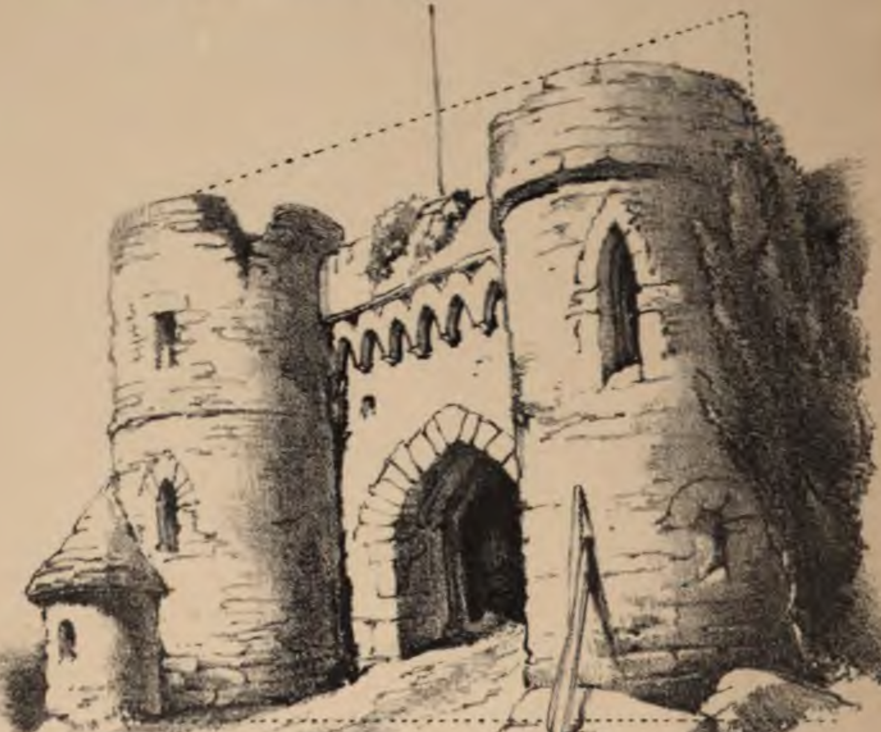


Lesson 103.

PLATE 23.



Lesson 104.



Lesson 105

LESSON 104.

229. The cottages in this Lesson are a repetition of Lesson 42, but reversed, and are intended to show you that if, as here represented, they are more interesting, they are so in consequence of their evidence of your greater knowledge of the subject, and *from the greater number of ideas suggested to the mind.* Short of colour, the mind is in possession of nearly all it can require.

230. In the roofs you will find all which you have, or ought to have, acquired by the study of Lessons 88, 89, and 90, whether as regards the method of their construction, the mode of characterising the materials of which they are composed, or how, where, and why they are to be emphasised. The window on the front of the thatched cottage is in part a repetition of Lesson 93, or nearly so; and, although it bears no comparison with that in point of size, it still exhibits much truth. If this drawing be more satisfactory than Lesson 42, it is not because it is more finished, as you might erroneously say, but *because it carries home to the mind a greater number of truths.* It is more *complete—not more finished.*

LESSON 105.

231. This Lesson is intended to exercise you in drawing round towers, and to show you, by comparison with the previous Lesson, how much more pleasing an object is whose general form is varied, even when it has but little interest in its minor features, than one whose general form and features are like that of the previous Lesson. Great care must be taken to give it varied emphasis, both in the shading and in the markings expressive of its character.

LESSON 106.

232. The subject of this Lesson is made up, as you will perceive, of several previous ones, and is especially illustrative of the important truths enunciated in ¶¶ 135, 136, and 180. You must not merely aim at making a good copy of your example, but at the expression of the same truths with the same force.

233. I cannot too often repeat, nor can you too sufficiently understand, that the advantage to be derived from each drawing presented for your study does not consist in your making an exact and fac-simile imitation of it, such as might be procured by an exercise of patience and a correct eye; but in your carrying out in your copy with equal force those truths which your instructions should have prepared you to recognise in the original. It is not the likeness of your copy to the original, mark for mark, dot for dot, or shade for shade, which in any case constitutes its merit, or proves your attention, skill, or progress, but in your never failing to exhibit the same facts, great or small, and *in conveying impressions of the same truths with the same force.* The merit of your copy is therefore to be judged of, not by its servile likeness to the original, but rather by its producing the like impression on the mind, and with equal power.

LESSON 107.

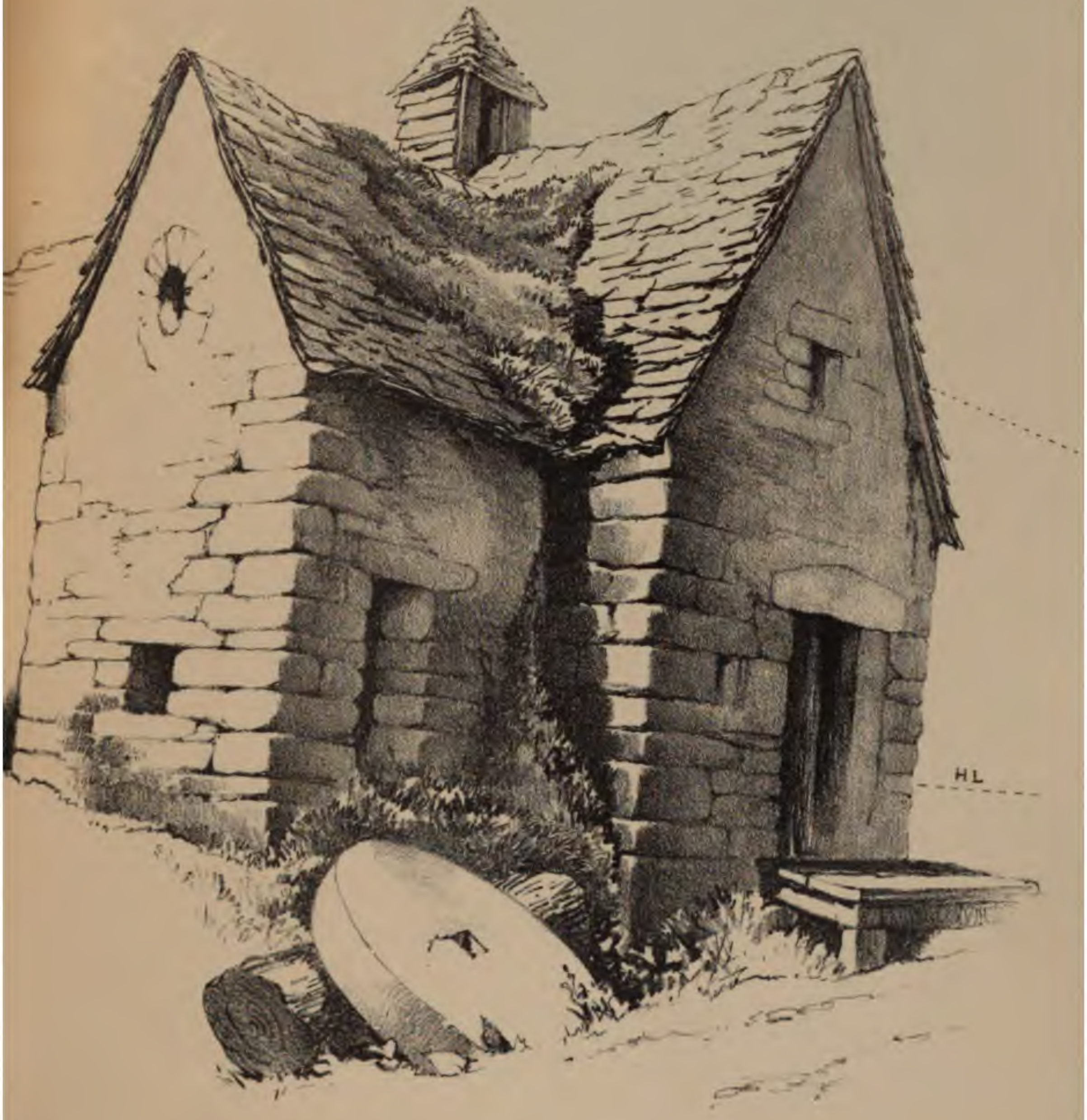
Questions :—

1. What is meant by Art expression?
2. Explain the difference between fac-simile imitation and Art expression.
3. On what part of an object is its character usually most clearly seen?
4. How do you give the idea of hardness of slate or stone, and the softness of moss?
5. What are the leading characteristics you would endeavour to express in Lesson 89?
6. What are mullions, transums, and labels?
7. How do you divide a parallelogram, when obliquely seen, into three equal upright parts?

CONCLUDING OBSERVATIONS.

234. If you have possessed yourself of the instructions contained in this Section, you will be well prepared for the more enlarged study which your future Lessons will open out.

235. In the course of the study of what is herein presented, you will have become acquainted with the details of various parts, each separately studied, and although, in the course of their execution, what you have been called upon to notice



Lesson 106.

may appear trifling or unimportant, yet it is on the power to make these observations that the power to draw depends. It must be manifest to you, as I have already said, and what has been rightly done must have been rightly observed, and that a satisfactory and effective result is not the fruit of genius, but of attentive and correct observation.

236. In order to test your progress, you should attempt to draw from nature such objects as constitute the Lessons in this Section, which you will be able to accomplish with facility, and with the same ability you displayed in the copies, if you have really learned the reasons and the principles these Lessons have been intended to place before you, and provided also you have tested the acquisition of each Lesson by drawing it from memory. It is no proof that you have learned a Lesson because you have copied it exactly, any more than your progress in language is proved by your ability to copy correctly a correct sentence. If, on the contrary, you can express the same sense by the same or similar words, spelt and arranged with equal regard to the orthography and syntax, then you have understood the language, and you can express ideas beyond those contained in your exercise; but not till then. Such it is with drawing.

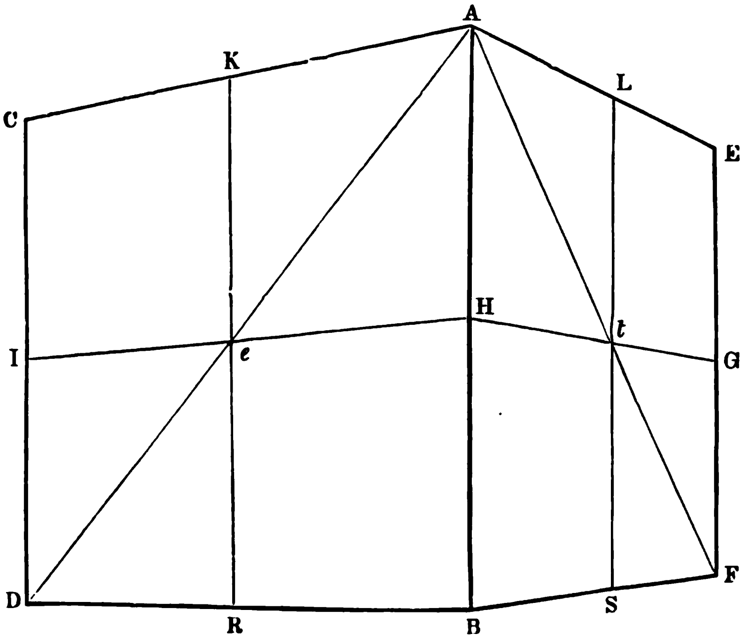
237. Indefatigable and earnest pupils will be content to work out the truth patiently, whether on a large or a small scale; the superficial and the impatient, disliking the labour necessary to acquire knowledge, are happy if they can possess themselves of an easy and specious substitute, and are, therefore, anxious to have what they call bold examples, which demand but little labour, and less knowledge, to imitate.

238. *Bold* examples are either the efforts of ignorance to wear the garb of knowledge, and, if possible, to be mistaken for it; or, if they display real power, they would be as much beyond the imitative faculty of a student of drawing, as the production of passages of poetic expression, equal to great writers, would be to the student of language, before he had even learned the connexion between the verb and its nominative case.

239. The difference in the meaning of a word depends on its place in the sentence, on a syllable or a letter; if these be not too trifling for the proper acquisition of language, why should similar and parallel observations on Art be so considered? Those who look on Art in any other light than as another language, equally difficult of attainment as a language of words, or attainable on any other than similar terms, view it falsely, and for that reason will never attain it.

SECTION V.

LESSON 108.



240. In this Section you will be taught the application on a larger scale of what you have already learned.

241. The most elaborate and ample knowledge of perspective will not enable you to draw an object with perfect exactness, unless you have previously obtained correct measurements of it, drawn to scale, and other pre-requisites; but, as these are all completely unattainable under ordinary circumstances, you can only approximate so near the truth, that an educated eye, being unable to discover any error, may receive what has been done as true. We are, for the most part, left to the exercise of the eye and the reason. This, it is true, will fall short of that extreme accuracy which is only attainable on such difficult conditions, and is hardly ever necessary to

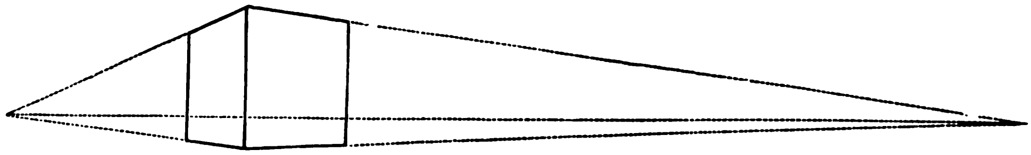
any but architects, or architectural draughtsmen, or to such persons as desire to draw buildings of numerous parts and elaborate detail, and to whom the study of perspective as a science is really indispensable.

242. Every Lesson supplied in this Section should be drawn by you on a *larger scale*, and *always in outline completely, previous to the shades and shadows being added*, except when and where you have occasion to use the stump. If you at once refer to the examples of Lessons 123 and 124, you will there see the aspect your drawings are always, in the first instance, to present.

243. The power to express your intentions in outline only is a very important acquisition. In the first place, it is a kind of brief translation, and, in the next you learn an expeditious and terse method of drawing forms, and of expressing certain ideas. You will find yourself often able thus to gather from nature, in a kind of short hand, what you could not have time to complete more fully with the shades and shadows.

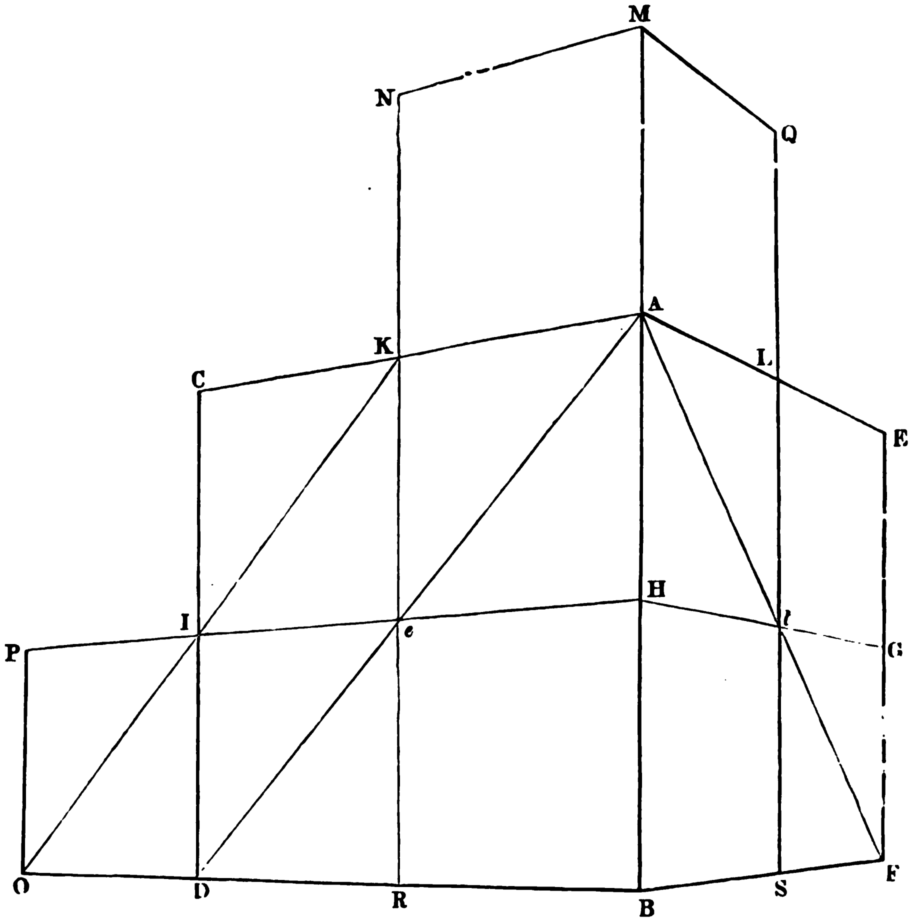
244. Conjointly with this Section, the *Lessons on Trees* may be studied with advantage, beginning with the simple elemental forms in the first Section of that work, or with *Forest Trees of British Landscape*, by the Editor.

245. In this present Lesson the cube is represented on so large a scale, that the upper lines of it are considerably above the eye; because it is intended to be applied to buildings, the greater portion of which is much above the eye, when viewed from near the level of their bases. The woodcut below will illustrate this.



246. Reference has frequently been made to Lesson 49, and if it be well remembered, the Lesson here given to you will be found perfectly analogous to it; precisely the same principles are here carried out, only on a larger scale, which will not on that account present any additional difficulties. The diagrams must be drawn with rigid accuracy, and may therefore be executed with the ruler.

LESSON 109.



247. This diagram is a modification or extension of the preceding one; and to accomplish it with truth and ease, a figure precisely like that of the last Lesson must be first drawn. The addition of the upper and left-hand cubes may then readily be obtained by means of diagonal lines and vanishing points.

248. **On Complex Forms.**—Complex forms may generally be reduced to simple elemental ones; and it is by the ready adaptation of the cube to so many and varied forms, that it becomes almost invaluable as an aid in sketching, whether from the flat or from nature.

249. In the previous Section its application has been confined chiefly to objects of comparatively small dimensions; here, the intention is to show you its adapta-

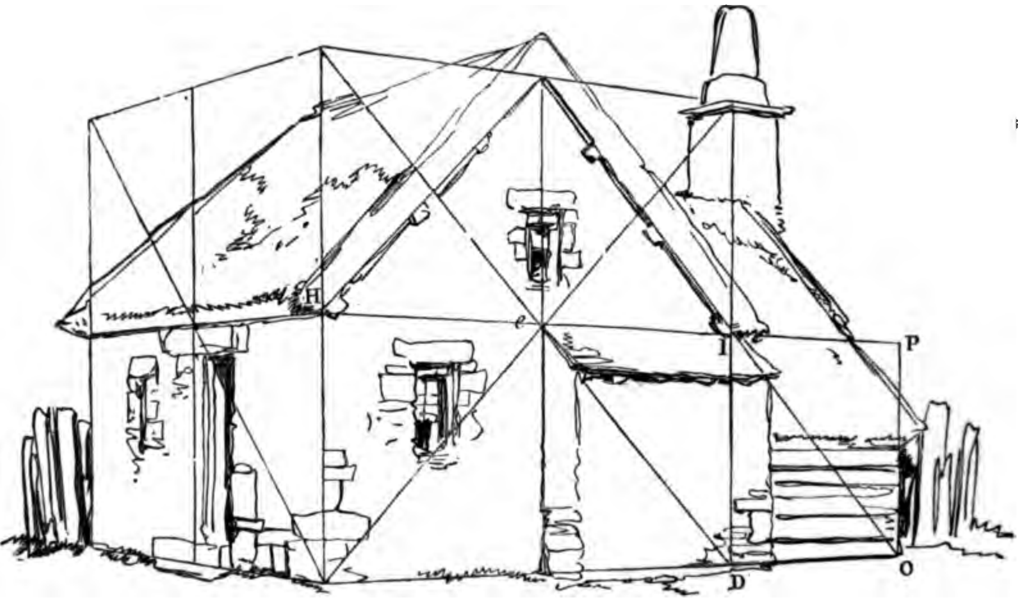
tion to larger and more complex forms; and that, too, without any further knowledge of perspective than that which you may have obtained from the previous Lessons.

LESSON 110.

250. Your success in drawing the outhouse, which is the subject of this Lesson, will depend on your being capable of drawing correctly the diagram given in Lesson 108. The various slopes of the receding lines must be decided by the vanishing points, to the right and left of the diagram.

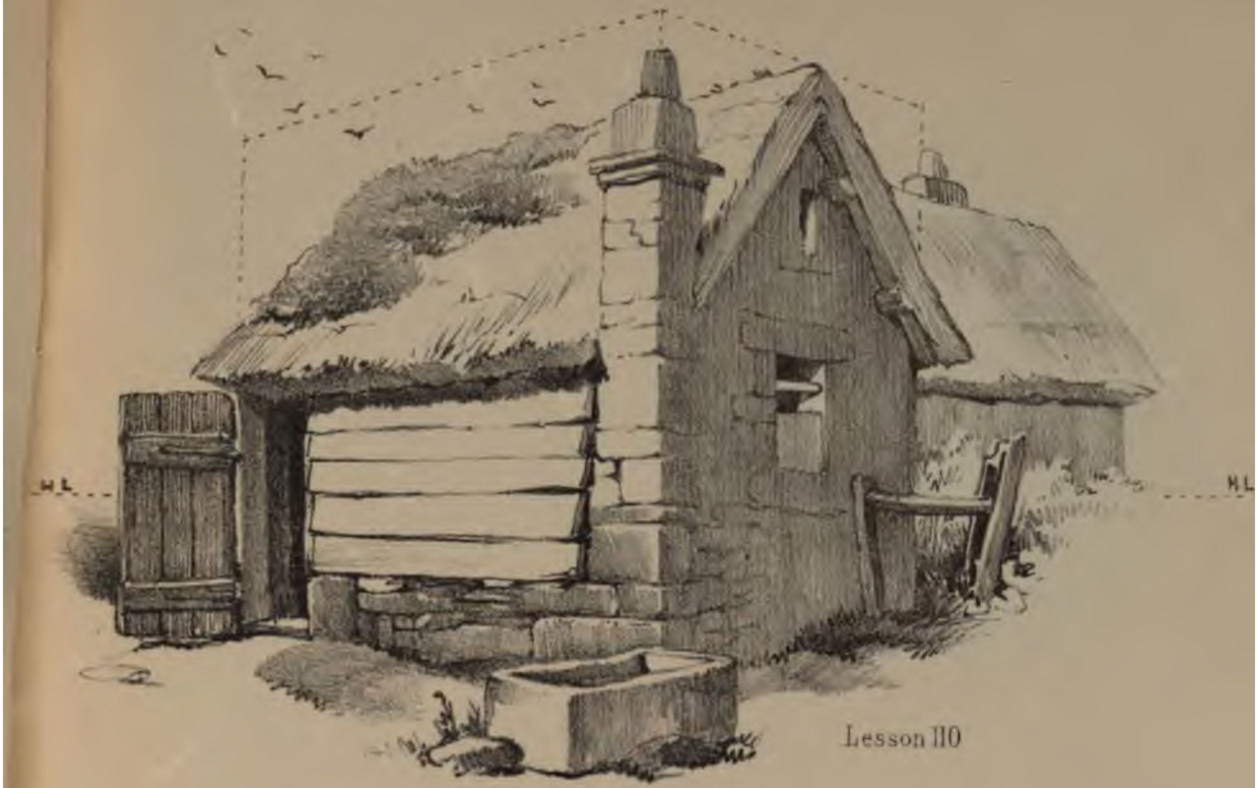
251. Before completing this subject with light and shade and shadow (having rubbed out the lines of the framework), read, and apply mentally, the instructions given in ¶¶ 99, 109, 192, and 200.

LESSON 111.

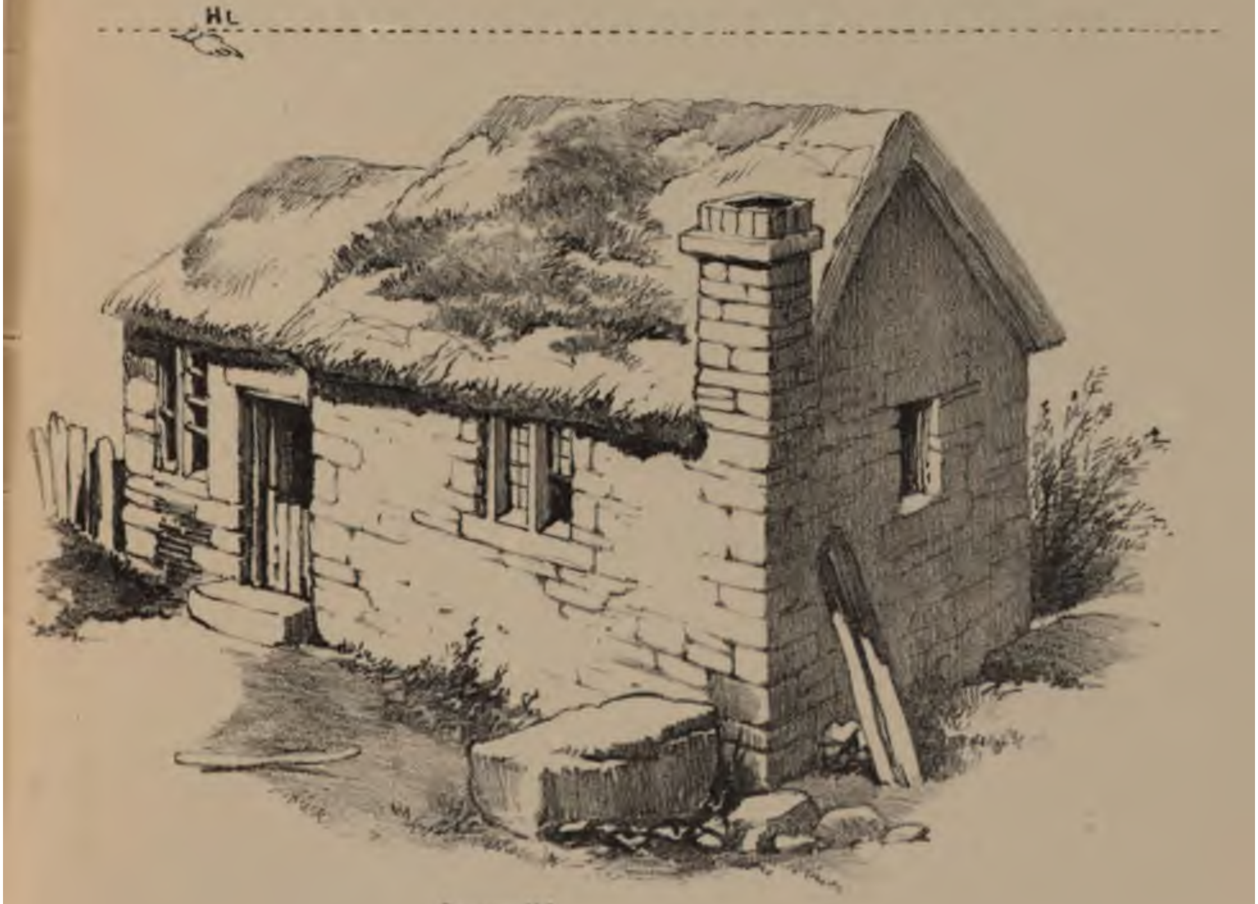


252. The intention of this Lesson is to render more practical the instructions you have received, by your having to complete with shades and shadows the outline here given. Rub out the auxiliary lines before shading.

PLATE 25.



Lesson 110

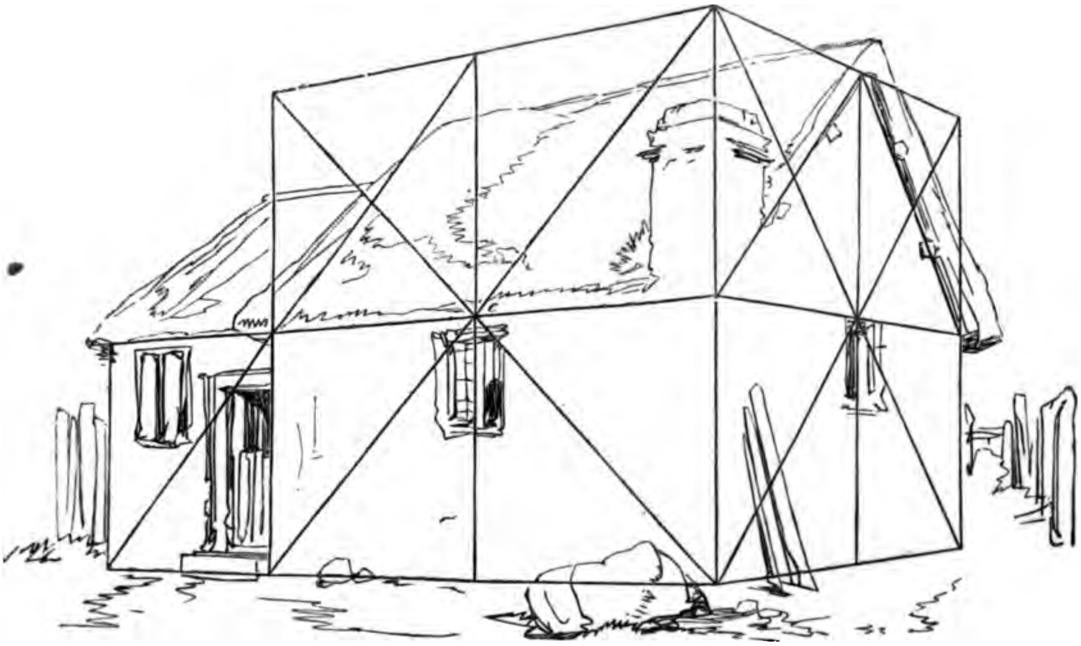


Lesson 113.

253. In doing this, you will observe that in order to give the idea of sunshine or brightness in the drawing, the *shades* must be *light*, comparatively, and the *shadows clearly defined*, and dark when near to the object casting them.

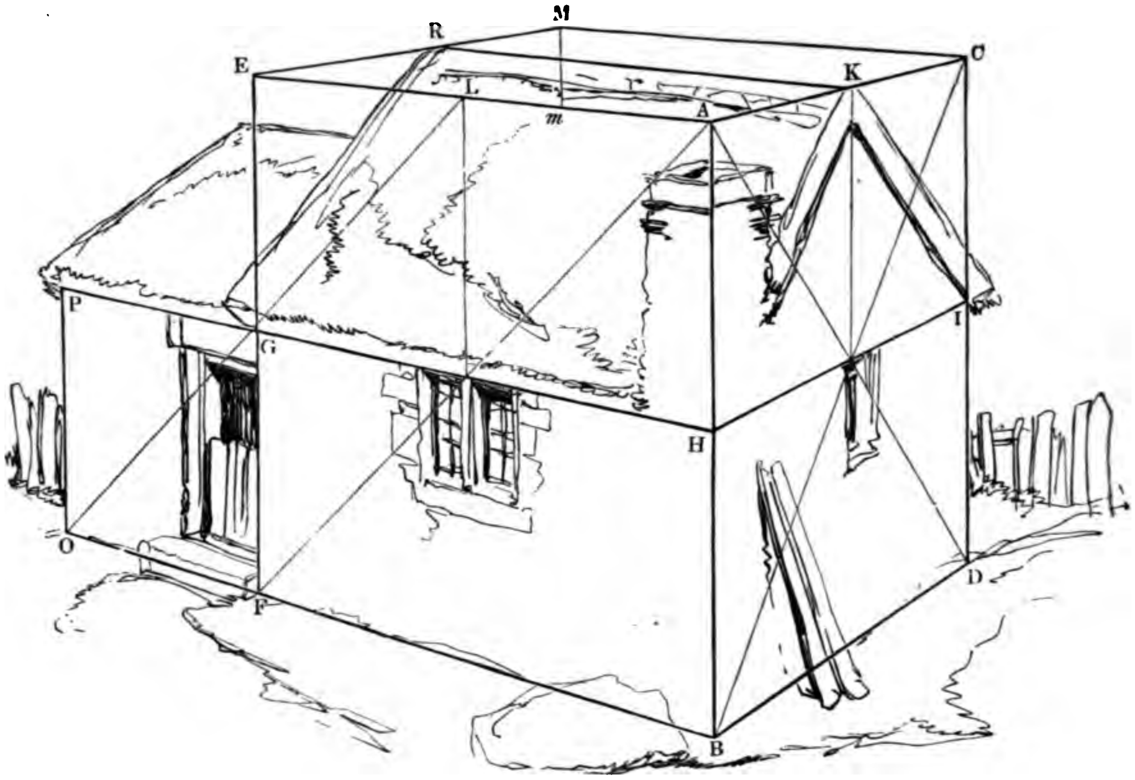
254. The next consideration should be as to the side from whence the light should come. Suppose it came from the left side of the drawing, the left side and roof would be illumined; but the largest and most interesting part of the cottage would be put under shade; it would be better, therefore, to suppose the light falling from the right-hand side, and causing the pleasant side of the cottage to be in light, and the less interesting side (the left) to be in shade. Such accessories as you may require you may obtain from various other examples in this and the previous Section.

LESSON 112.



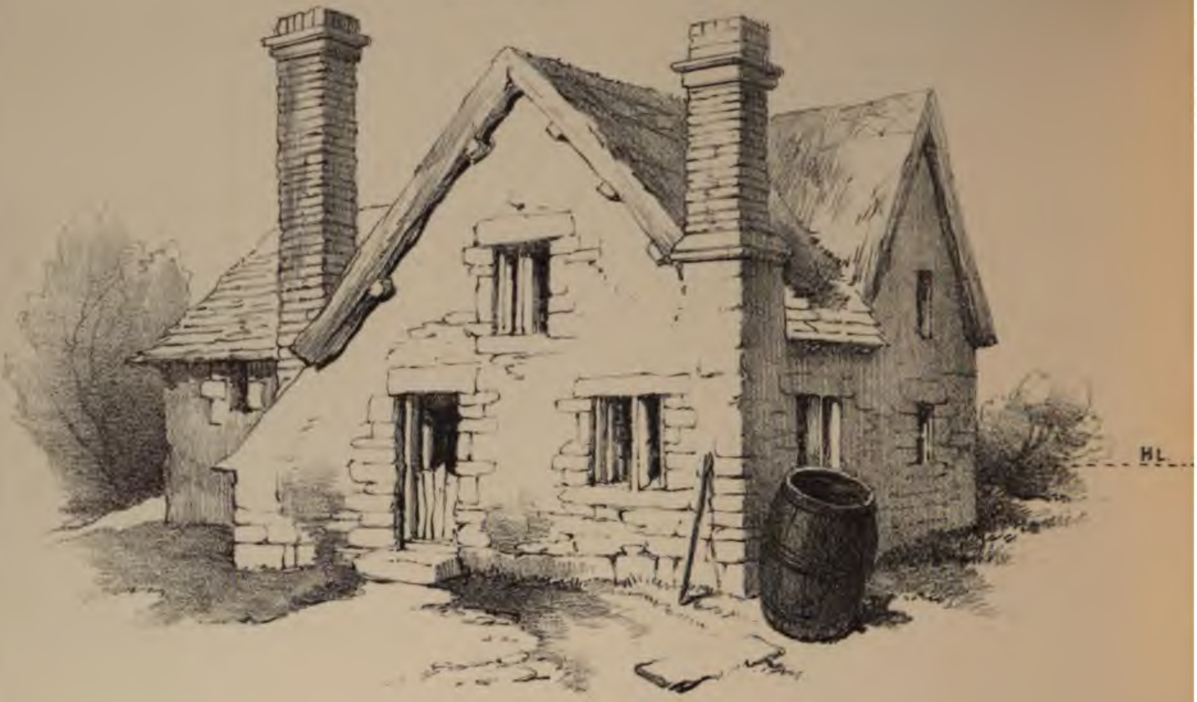
255. The diagram in this Lesson is like that in Lesson 108, and is intended to solidify and make practical the information you acquire. The instructions in previous Lessons will afford you all necessary assistance. The light should come from the left-hand side. Be careful, before you shade, to remove all the auxiliary lines.

LESSON 113.

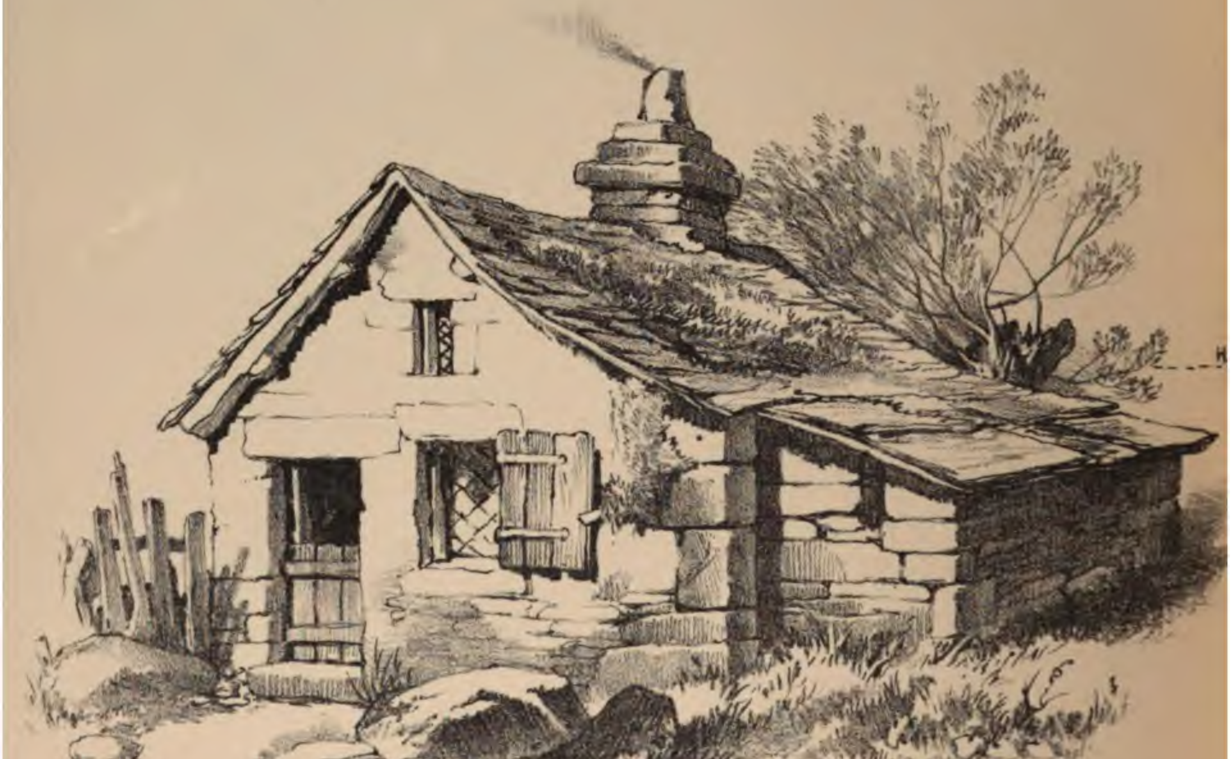


256. The cottage which forms the subject of this Lesson is precisely the same as that of Lesson 112, only differently viewed. In the former Lesson you found it drawn as it would appear to a person seated nearly on the ground; in this it is represented as if seen from a higher building, or from higher ground: every receding line, therefore, tends upwards. This is what is known as a bird's-eye view.

PLATE 26.

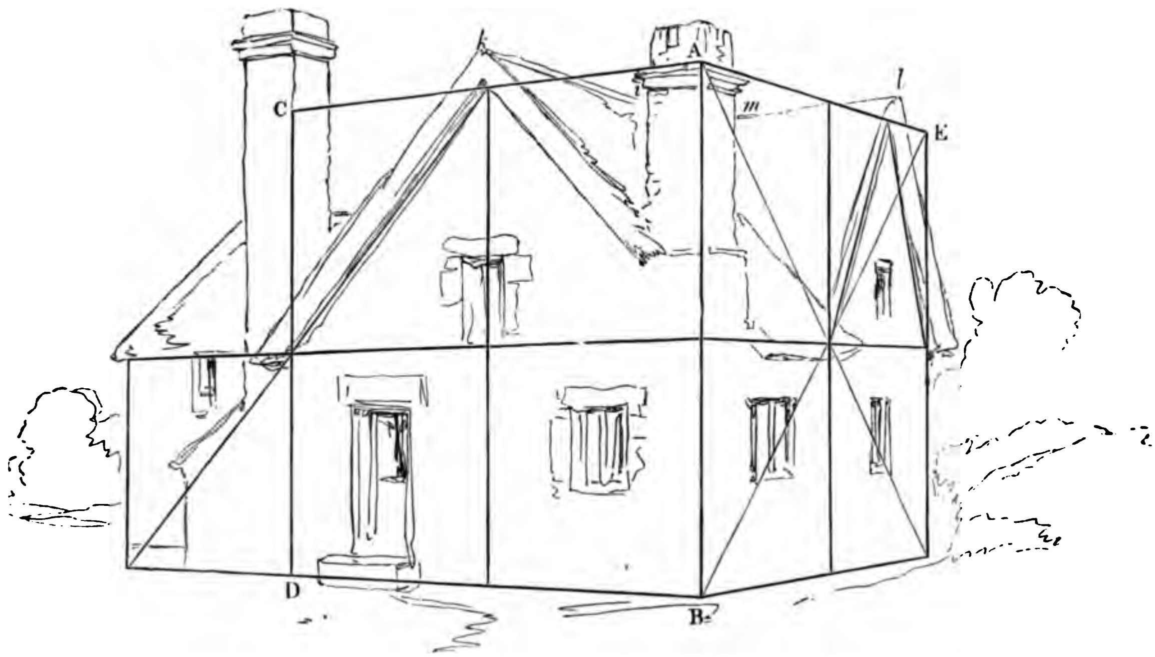


Lesson 114.



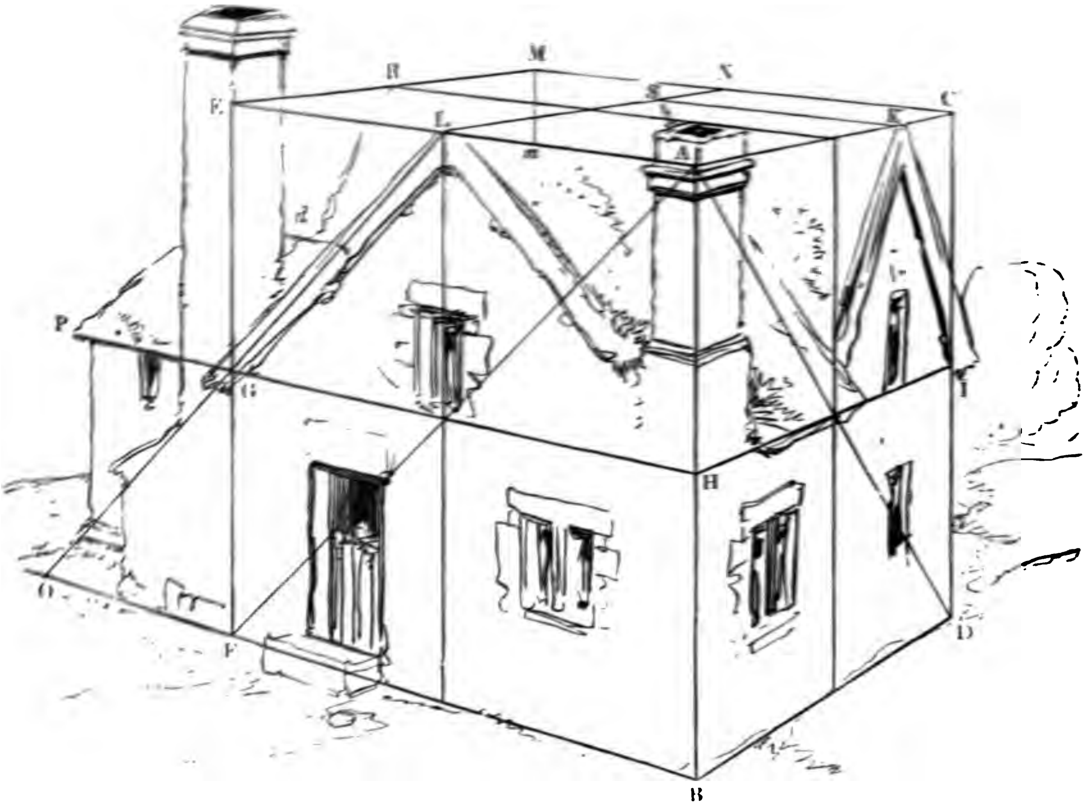
Lesson 116

LESSON 114.

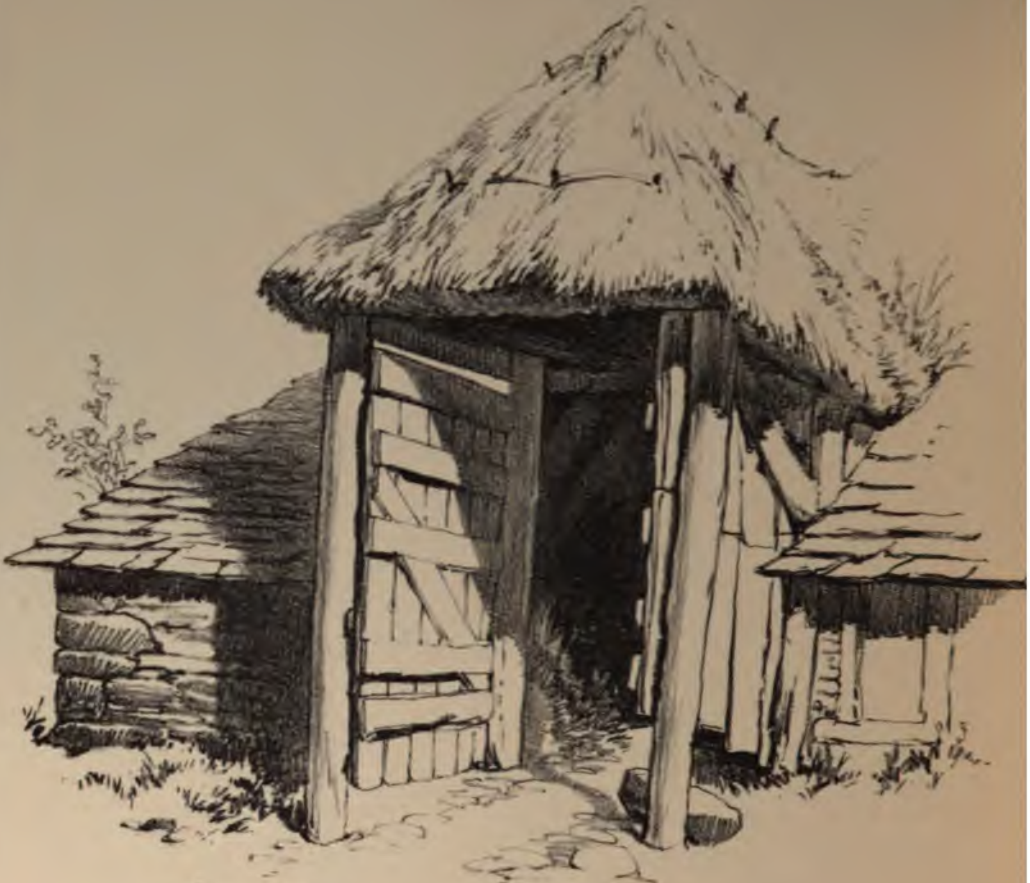


257. This Lesson is founded on a diagram exactly like that of Lesson 112, but the subject is more complex. After you have correctly drawn the diagram, and the cottage within it, proceed to shade. For reasons given in Lesson 111, ¶ 254, the left side is illumined and the right put under shade. The darkness of the barrel, which is introduced to give variety, arises from its *local colour.* If you have exercised yourself in the study and practice of the ***Lessons on Trees,*** you may add some simple mass of trees as accessory, behind and to the left hand side of the cottage.

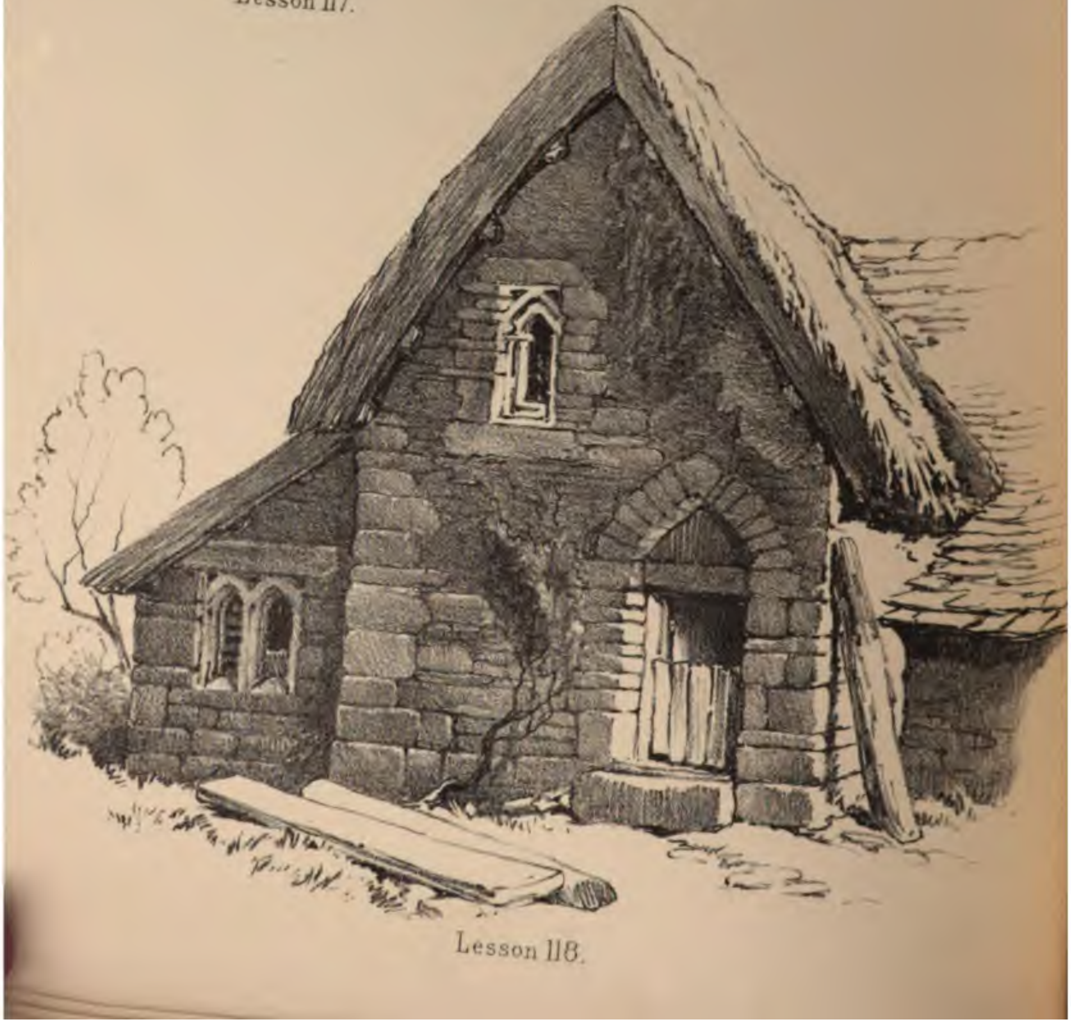
LESSON 115.



258. This subject is a repetition of your last Lesson, supposed to be viewed from an eminence; consequently all the receding lines will incline upwards. The shade and shadows you must add, relying on your previously acquired knowledge, in order that by this practice you may be the better prepared for the more complicated forms of the future Lesson, and also to prove, incontestably, that every step which you make in advance is due to the progress of your mental knowledge, simultaneously with your increased accuracy of vision and readiness of hand. Do not fail to carry out the remarks in ¶ 242.



Lesson 117.



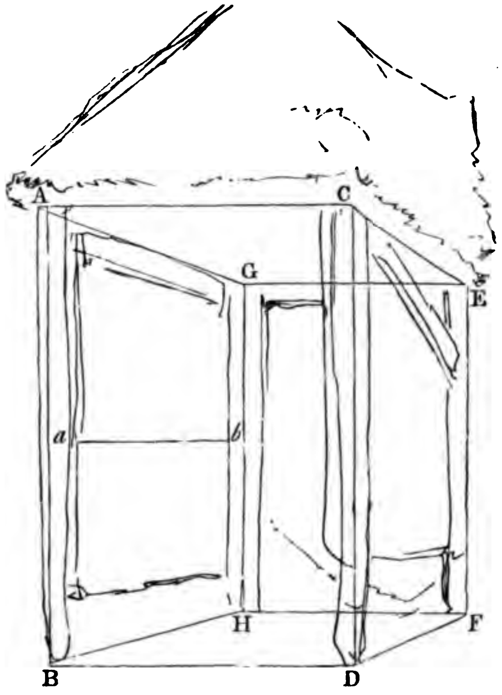
Lesson 118.

LESSON 116. Plate 26.

259. The general form of this subject, a Welsh cottage, is very simple: its interest is owing chiefly to the variety of truths exhibited. Observe, for instance, the stones of the chimney and walls, that there are not two alike: the same may be said of the roof, covered partly with small and partly with very large slates or flags, these in part concealed by, and strongly contrasting with, the soft grass and moss.

These truths should be thoughtfully and earnestly expressed, as also the Willow-tree.

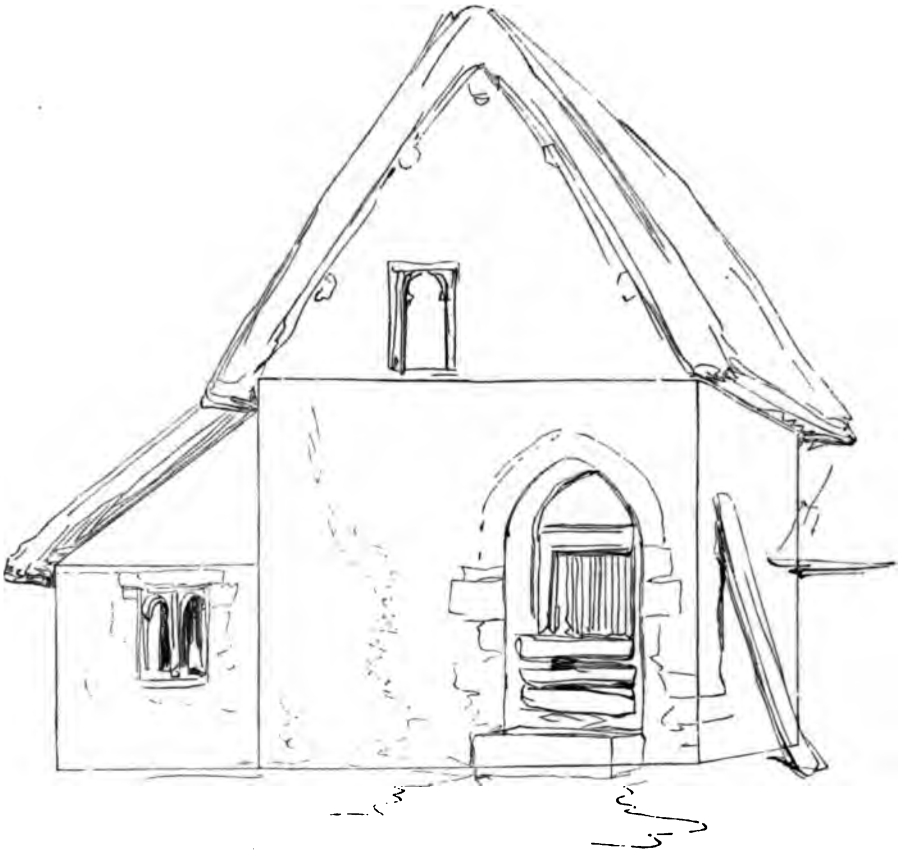
LESSON 117.



260. This Lesson, consisting of the entrance to a barn, should be drawn considerably larger than it is here given: the height of the horizontal line (H.L.) is indicated by the short line *a b*. The roof, slanting backwards like the dormer window in Lesson 97, is what is called a hipped roof.

261. The heavy sodden thatch should be well expressed, and the laws relating to cast shadows carefully attended to, showing the surfaces over which they pass. The plant on the left side of the barn must be carefully copied, and the shading of the interior of the barn *should be made to appear as if you could walk in.* These are the results you are to seek.

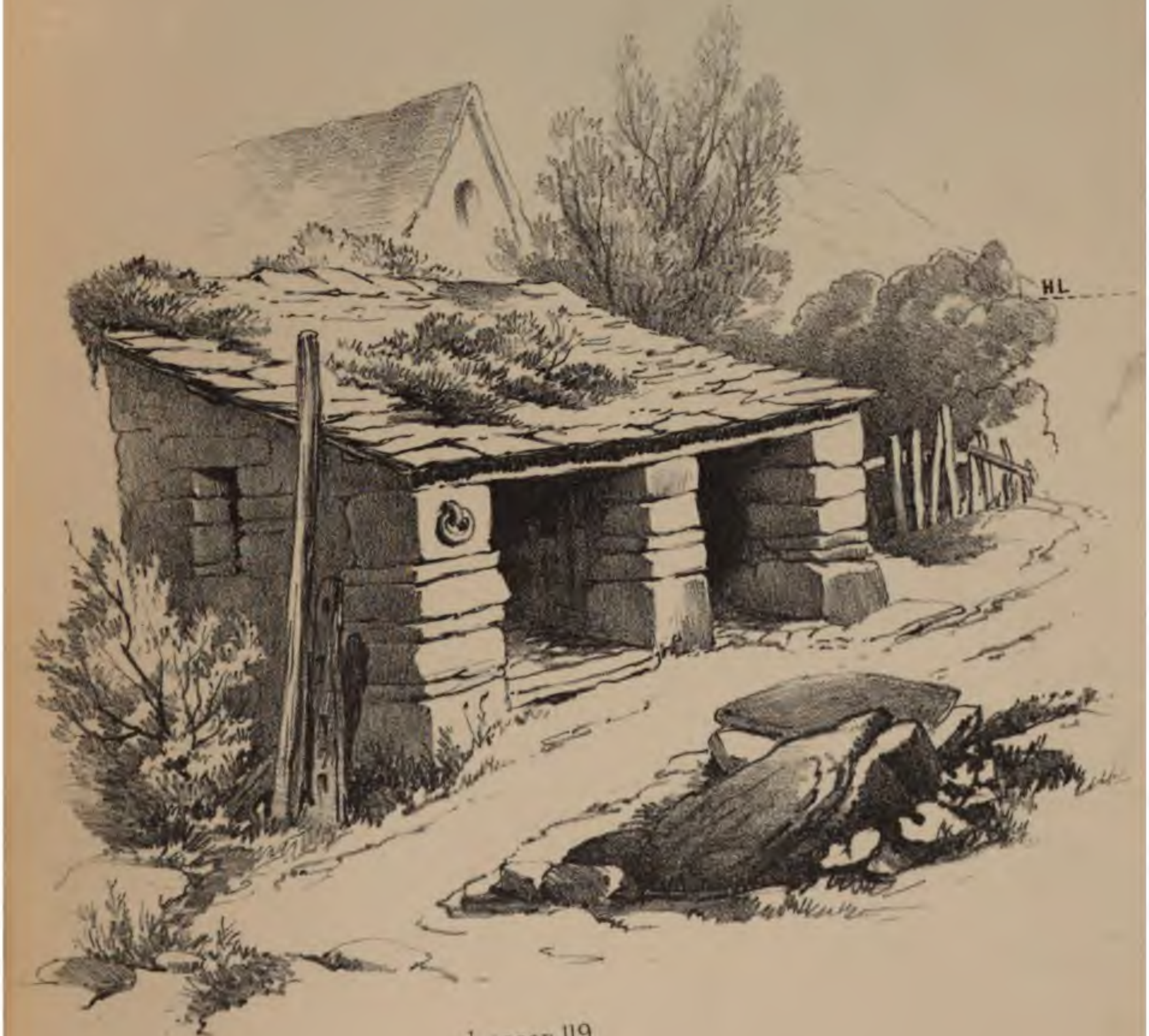
LESSON 118.



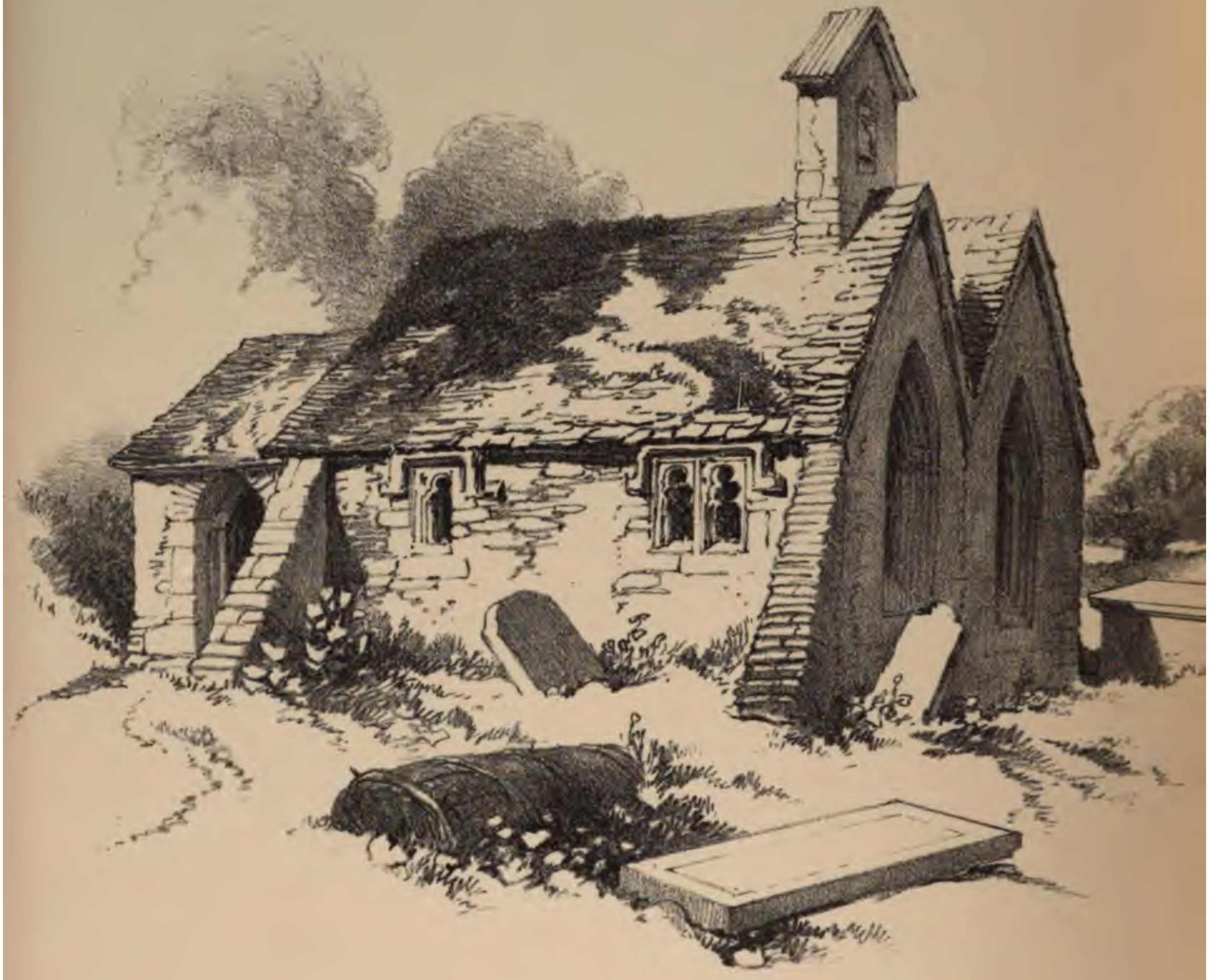
262. The subject of this Lesson is a portion of St. Radegund's Abbey, near Dover, in Kent. The broad shadow seen here over the entrance front may be done with the stump, *if your paper be sufficiently rough,* and should be put in before any of the character: the difficulties to be overcome in doing it are to make it even, and to leave the small lights on the step, on the side of the door, and on the windows, and to make all the edges clear, and neat.

263. You must always remember, that you have done nothing effectively, unless with a distinct and justifiable intention—you should admit nothing to be pleasing or properly executed, *until you can prove it to be true.* The power to investigate what has been done, and to test it by a knowledge of the truth, makes your feelings satisfied with what your judgment approves, and encourages you to persevere, because your feelings become, by this process, more refined, and your mind and hand prompted to fresh exertion.

PLATE 28.



Lesson 119.



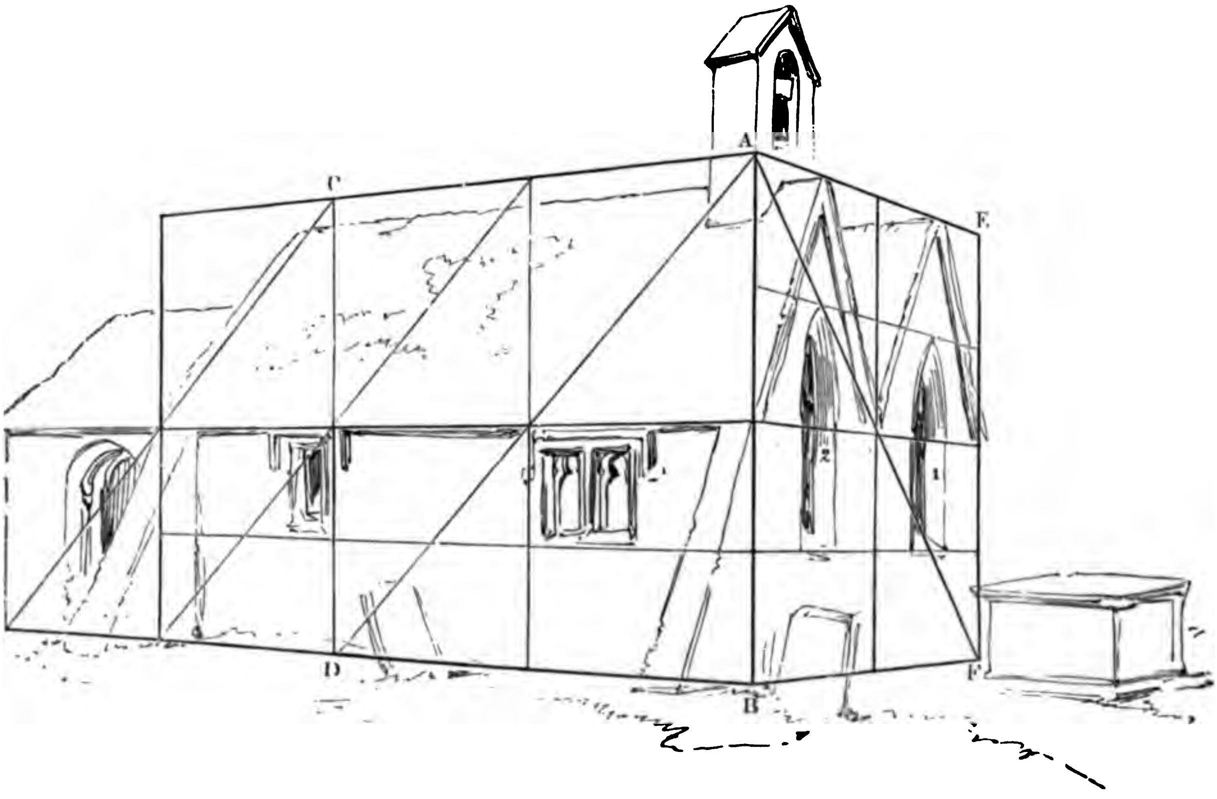
Lesson 120

LESSON 119.

264. If you are familiar with *Models and their Uses*,* the foundation or framework of this Lesson will be instantly recognised. In Lesson 73, as also in subsequent Lessons, it has been stated that the beauty of a subject depends in a great measure on *variety;* and this in every possible degree: even the ring in the square block of stone gives agreeable contrast; and the pieces of wood slanting against the wall,—one with holes in, indicating that it has seen other service. The rocks and undulations of the foreground must be carefully expressed.

LESSON 120.

VILLAGE CHURCH AT MUKIR, YORKSHIRE.



265. This diagram you should first study carefully, and then make your sketch from the Lithograph drawing, and by means of vanishing points. Be

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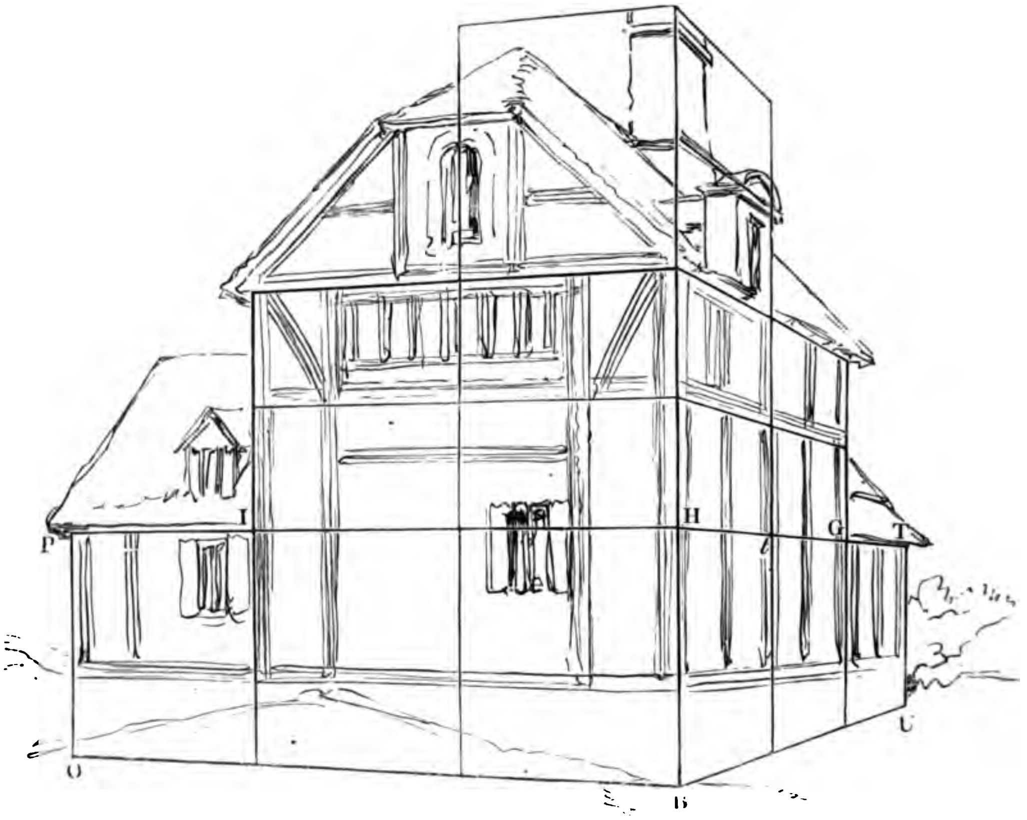
* *Models and their Uses.* Winsor and Newton, London.

careful to have the cusps of the windows on the front of the building, as well as the labels over them, clearly defined with a hard pencil, having a sharp point. All must be *clear, decided, emphatic.* The undulations and varieties of ground must be well attended to.

LESSON 121.

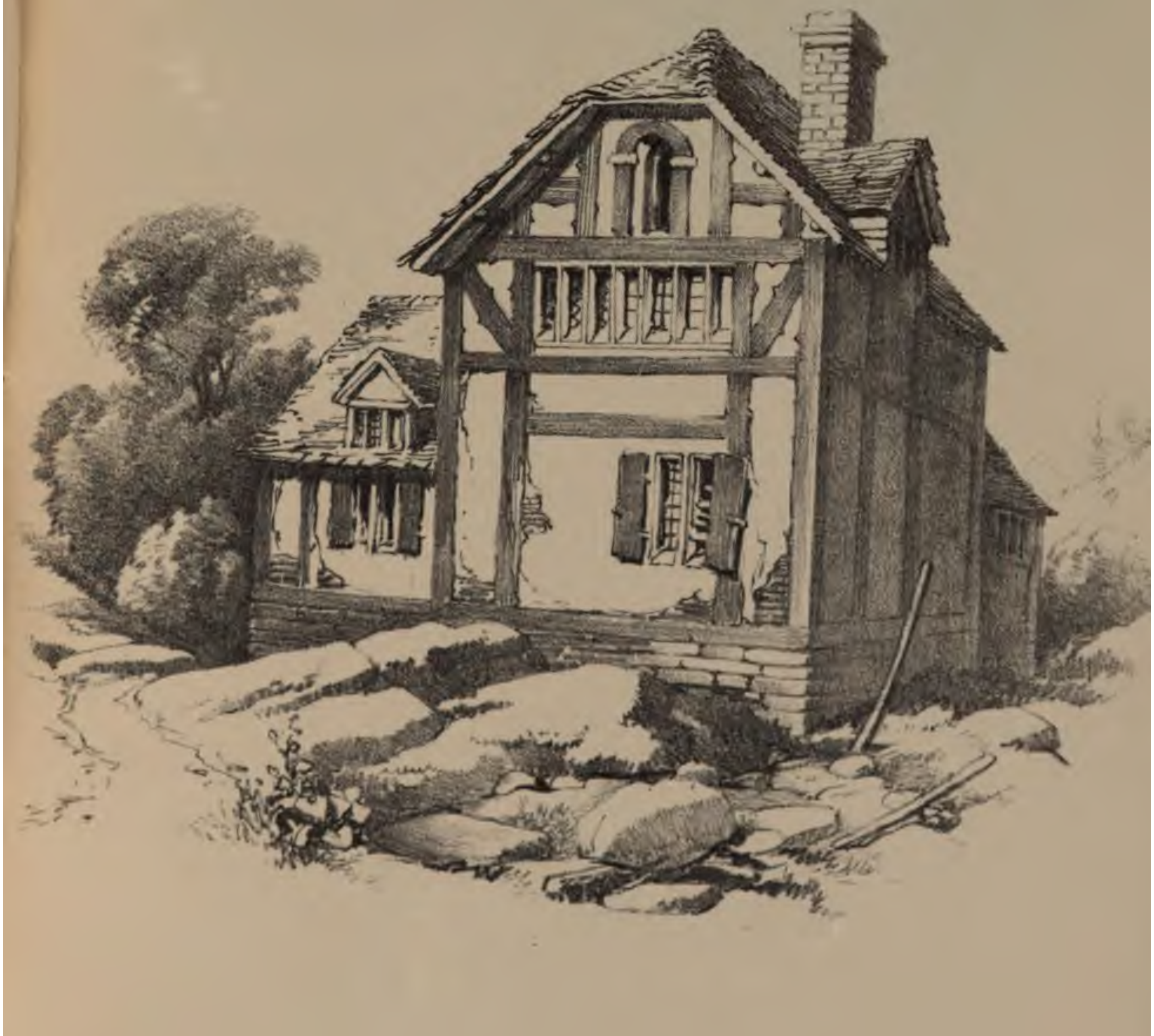
AT BEILSTEIN, ON THE MOSELLE.

266. The intention of this Lesson is to show you how the instruction you have obtained from previous Lessons applies to objects of greater magnitude, and also in this and the following Lessons to impress upon you the necessity for great precision in the execution.

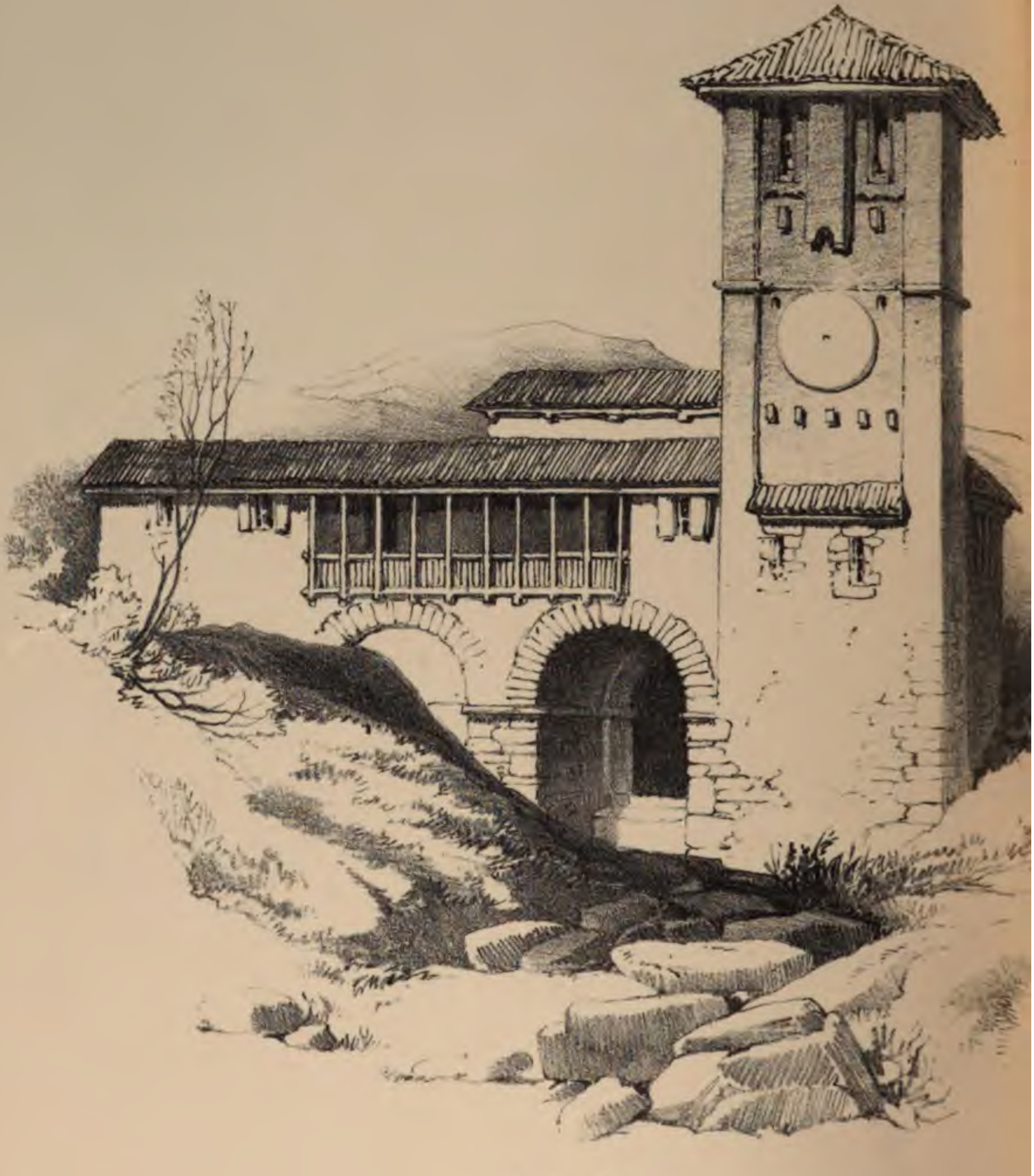


267. The woodcut will sufficiently exhibit what the diagram is, and how the subject is framed on it, with all its details of timbers and windows. The eye of the spectator is a little below the line **P H T.** The base lines **O B U** were required

PLATE 30



Lesson [2]



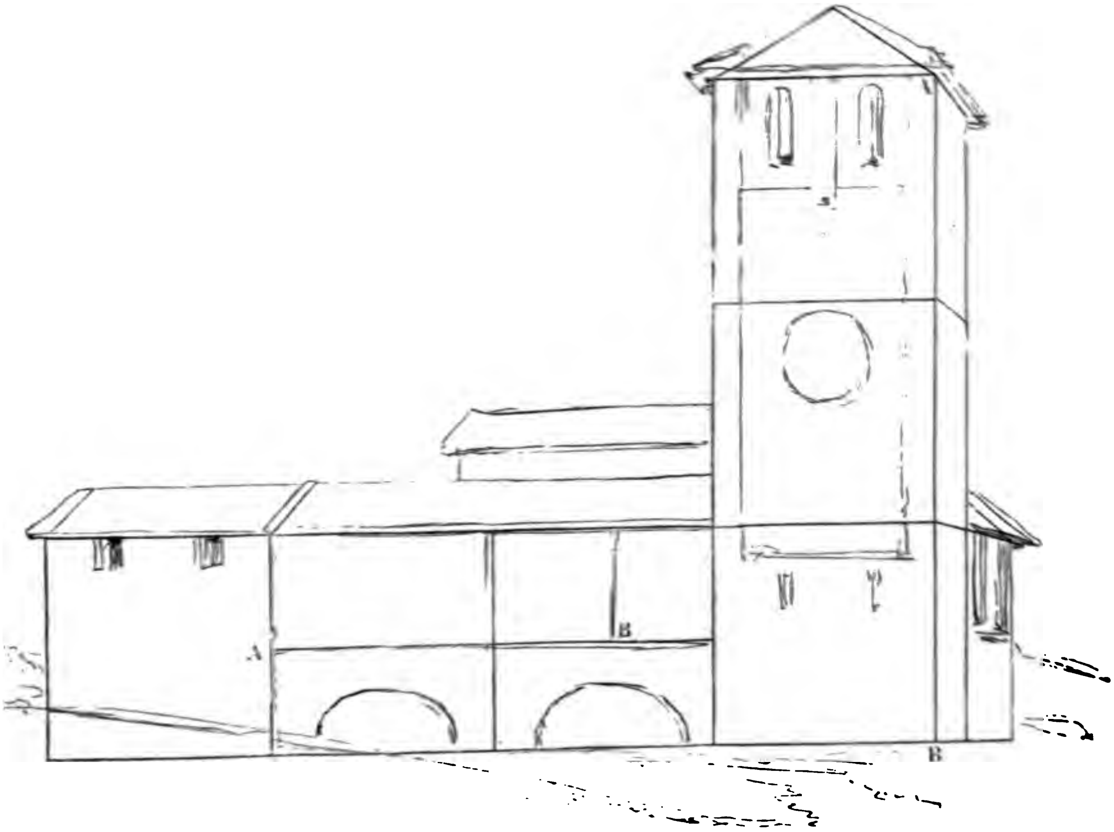
Lesson 122

in the sketch, to obtain the line of the lower timbers accurately, but they are afterwards hidden by the irregular surface of the ground.

268. Great evenness must be observed in the shades and shadows everywhere. The shades must never be allowed to pass beyond the outline which, in every instance, should be rather darker than the shades, so as to preserve the requisite clearness. You must observe this universally.

LESSON 122.

ITALIAN BUILDINGS AT BERGAMO.



269. This Lesson is intended as a further exercise for you in neatness of execution, because, as the subject of it is larger, but drawn to a smaller scale than the preceding Lesson, that neatness is imperative.

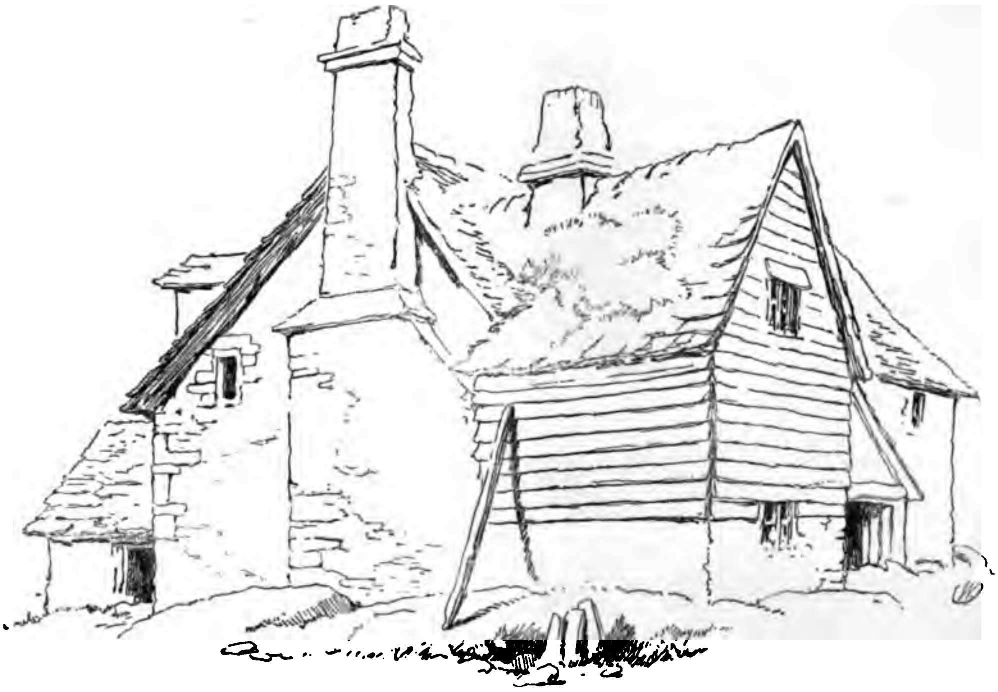
270. A greater quantity is represented within a smaller space. Take, for instance, the gallery **A B**, which in nature is thirty feet long and ten feet high; here, then, we have a feature presenting a front of no less than *three hundred superficial feet*, represented on a superfice of *two square inches.* According to this scale, every line which represents the upright posts and the railing occupies a space three inches wide or more; the slightest deviation, therefore, in a line anywhere, would represent a considerable irregularity, and if the lines of any one of these posts were only separated from each other by the breadth of a line, that post would appear as if it were three inches, or more, thicker than the others. If, with a feature of the subject so large as the gallery, a slight deviation is so great an error, in the smaller objects, such as the tiles and windows, similar deviations would be productive of intolerable errors. From this you will see, that *neatness of execution* is not merely a recommendation, but *is an imperative necessity* on which more than half the merit of your drawing depends.

271. When, as in this case, objects of magnitude are represented on a small space, the outline should invariably be done everywhere before the shading, and should as invariably be rather darker.

272. The whole of the shading on the building must be done with the pencil or chalk, as the stump would not leave the edges sufficiently clear, but on the ground the latter may be used with advantage, first laying in the general shade with it, and afterwards adding those lines which are characteristic of the grass, stones, &c., taking care to keep their strength subordinate to the building, which, by reason of its superiority as a feature, should always be made more striking. Not a touch on the ground should be as dark as the recesses of the windows and the shadow of the roof, seen between the upright posts of the gallery, or on the wall beyond them. You must take care to preserve this shadow always of the same breadth and depth of colour. The roofs being made dark by the lines which represent the tiles, together with the shade on the ground, convey the impression that the building is of a light colour and in bright sunshine.

LESSONS 123 and 124.

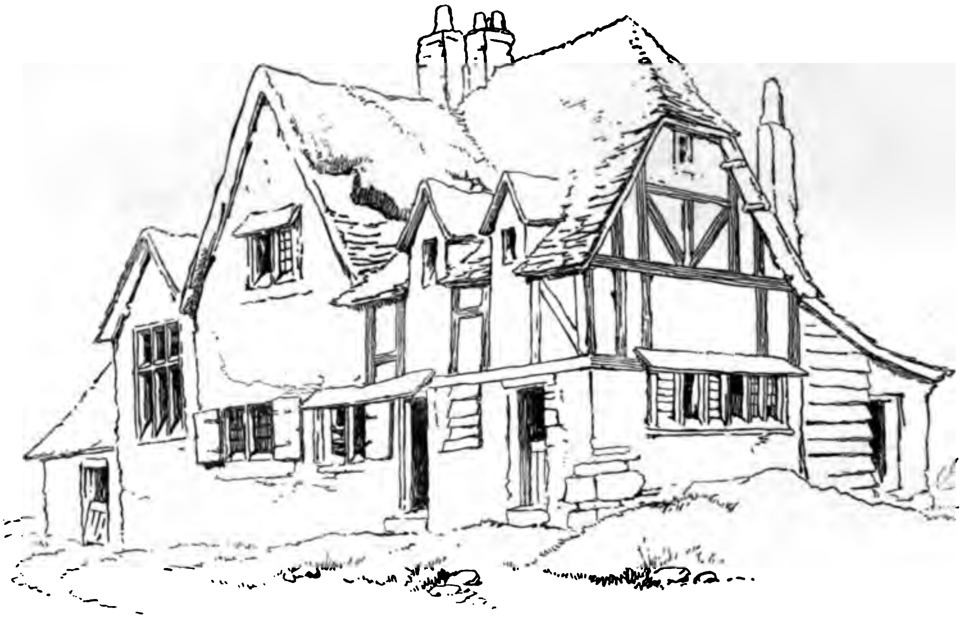
273. It is not alone by putting questions and receiving verbal answers, however correct, that your progress can at this stage be tested. You may remember what was stated in your first Lesson as the principle on which this work has been framed for your instruction, viz., *That you should possess a clear mental perception of what is to be done previous to any operation of your hand.* The importance of this will be felt in completing with light and shade and accessories the outlines for these two Lessons.



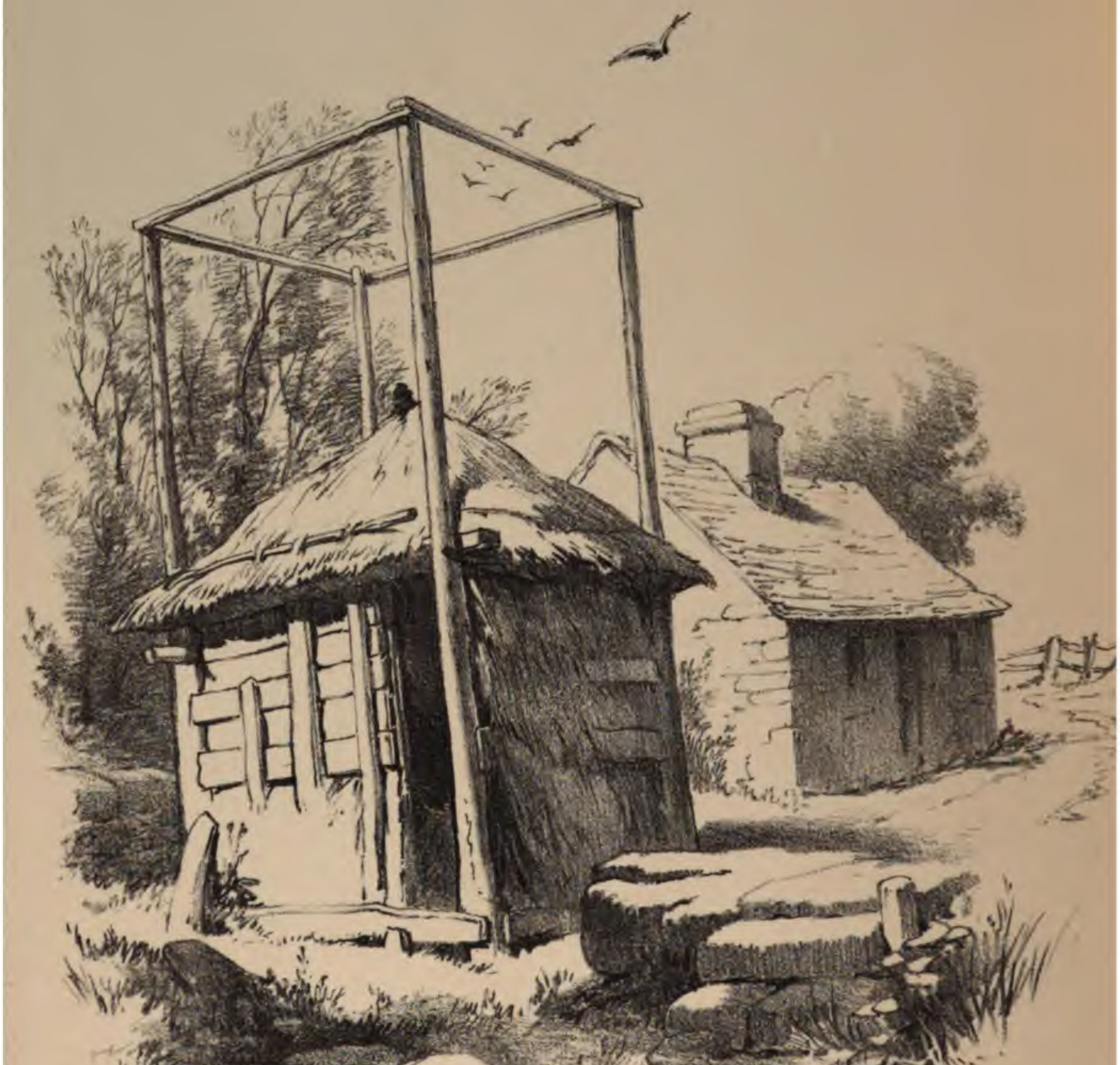
LESSON 123.

274. When your drawings are done, may I ask every question already asked, whether touching the form, the character, the shades and shadows, and be sure of receiving a satisfactory reply? May I ask if each part of each drawing is true, and whether you can prove it, and be sure of an affirmative answer? If not, you will have to retrace your steps: to go on would only be to increase your embarrassments, and take you further from the acquirement of Art.

275. I may now, in conclusion, say that, if the use of the brush be your ultimate ambition, you have made the best possible preparation to ensure your eventual success. All the instruction herein contained is *as indispensable to one instrument as to the other*. Hence, then, every step you have made in the effective use of the one instrument has been as certain a step towards the successful use of any and every other you may in future essay.



LESSON 124.



Lesson 125

SECTION VI.

LESSON 125.

A HAYRICK.

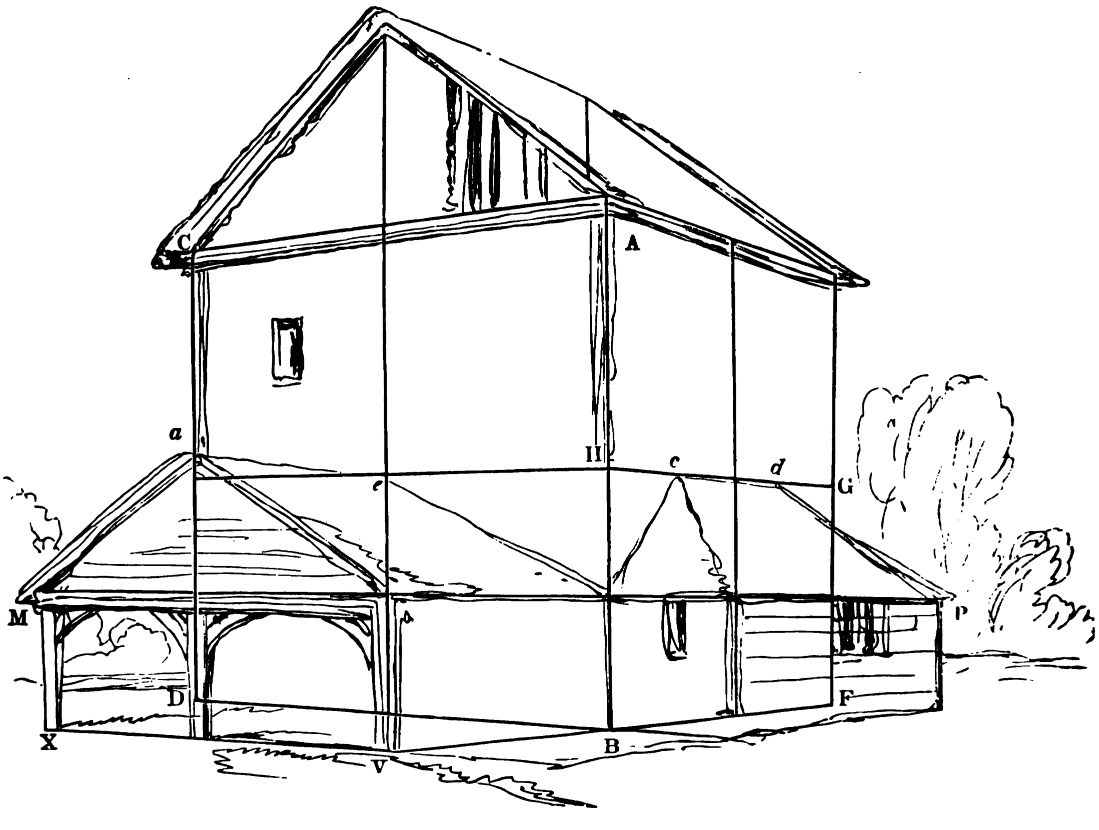
276. **Expression and Local Colour.**—Presuming that you have fairly applied yourself to the acquisition of what has been placed before you in the previous Lessons, your attention in this Section will be chiefly directed to expression, to objects in combination, to local colour, and to the more extended application of the means of Art, so as to procure results of a higher character than belong to that more individual imitation, to which your attention has hitherto been unavoidably limited.

277. It will be found a good plan to draw each of these subjects, which are more complicated than any previously given, on a larger scale, or in outline only, before the shading is attempted, in order to acquire the power of expressing them by the simplest means. The intention of these Lessons being *to enable you to draw the like from nature;* and that, by the practice they present, you may learn to depict, truly and rapidly, whatever object may have attracted your attention or won your admiration, when, for want of time, you may not be able to study it with its light and shade complete. With ability to draw an accurate outline, and possessed of the knowledge of those laws of light and shade and character which have been imparted to you, you may afterwards be able to exercise and increase your powers from Nature; and whilst thus procuring for yourself treasures of intense interest, you will at the same time enrich your imagination, quicken your feelings, and keep yourself alive to those beauties which you have learned to appreciate through the medium of Art. My desire is *to make Nature your great teacher,* by putting you into a condition to receive her more numerous, more potent, and unlimited instructions.

278. Although applied to a tree, where there is so much intricacy, ***shade must be even.*** The character of the various parts is most clearly exhibited at their extremities. The branches must be thinner towards their outer ends, which should be lost in the leafage. If these instructions be strictly attended to, and the edges everywhere kept clear, the shades will appear to retire.

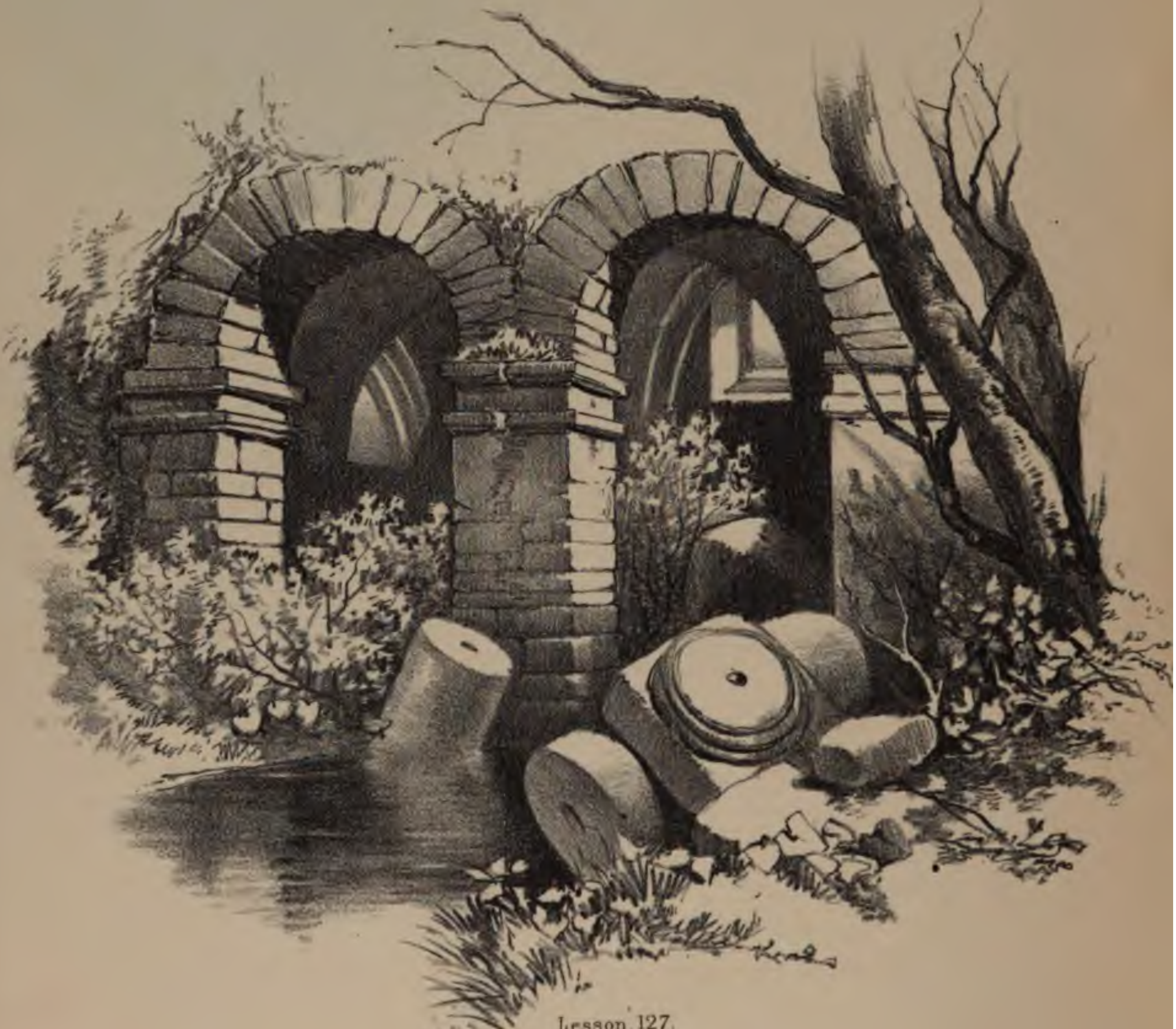
LESSON 126.

FARM-BUILDINGS AT PENSHURST.



279. First begin with the front perpendicular line **A B**, and decide on the horizontal line **M P**; and proceed afterwards as in previous lessons. To this subject no lithograph is given, but it may be readily completed by reference to the various Lessons in this and previous Sections. Trees may be added on the left-hand side, and also a fuller and more interesting foreground. The light should come from the left side.

PLATE 33



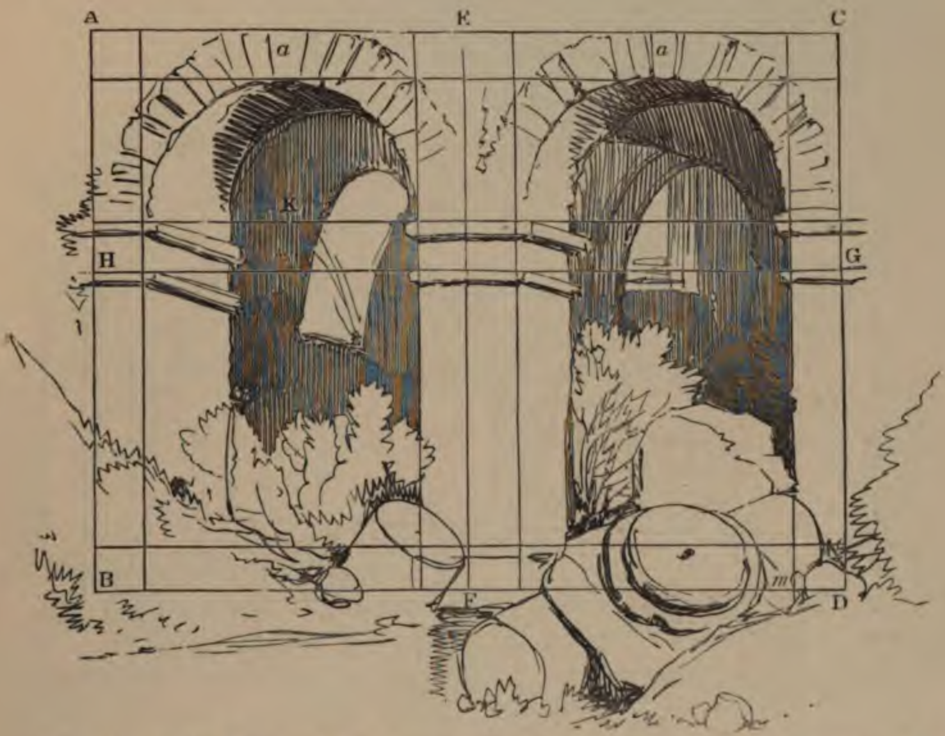
Lesson 127.

LESSON 127.

A PORTION OF THE CRYPT OF THE CASTLE OF EHRENBERG, ON THE MOSELLE.

280. The woodcut will at once explain to you the simple nature of the diagram on which this subject is constructed.

Your drawing should be larger than the one here given.

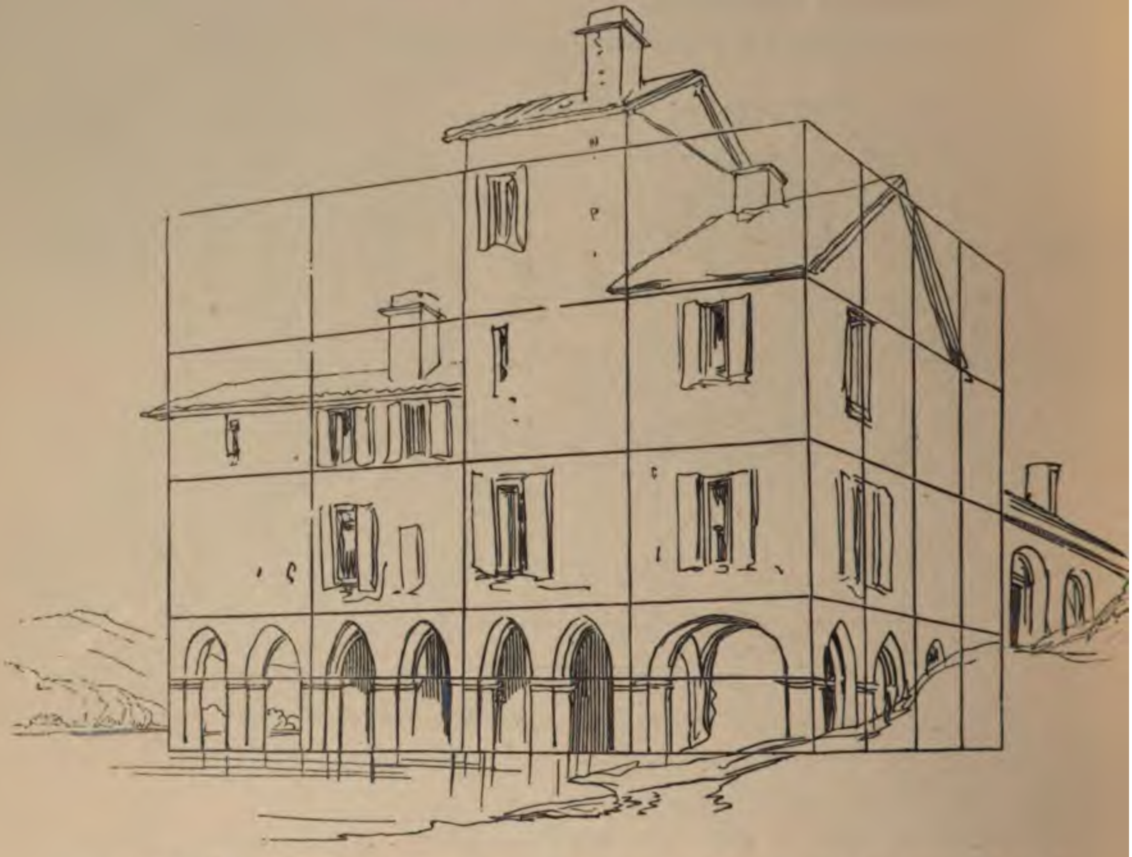


281. Draw **A B C D**, and divide the figure equally at **E F**; then place **H G**, and having these lines, the rest may easily be found. In this subject, where arches are drawn on a larger scale than in any of the preceding Lessons, their construction may be better seen and understood. At *a a* there is always a stone, the centre of which is the centre of the arch, consequently a line which would show the joint of a stone is never to be found in the exact centre of an arch; this stone is called the key-stone. On either side of this the lines exhibiting the other stones of the arch, incline to a centre point at **K**.

282. The water, and the shading of the crypt seen within the arches, should be done very evenly. The herbage in the foreground must be made dark, firm, and even; and the distant, or inner parts, be thus made to appear more remote by the firm outline.

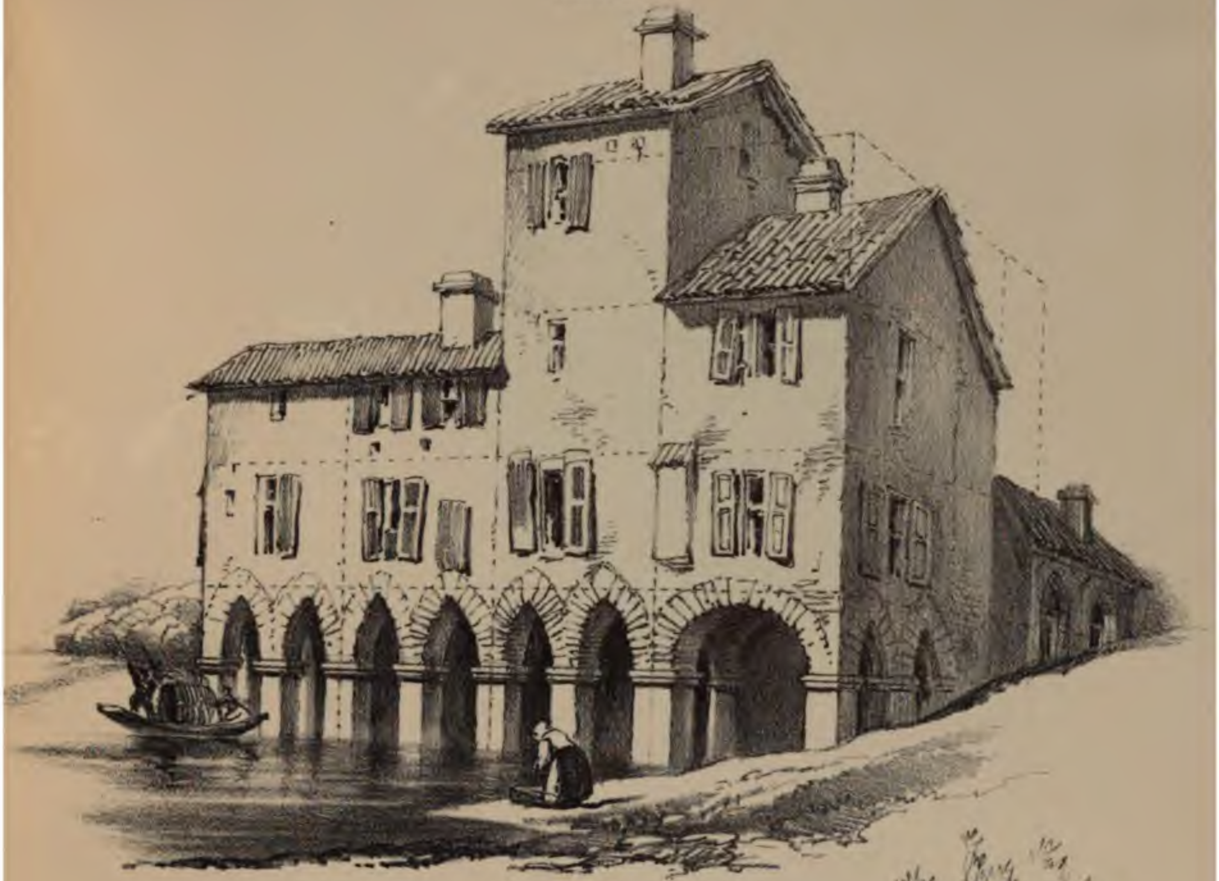
LESSON 128.

BUILDINGS AT PUZZANO, LAGO MAGGIORE.

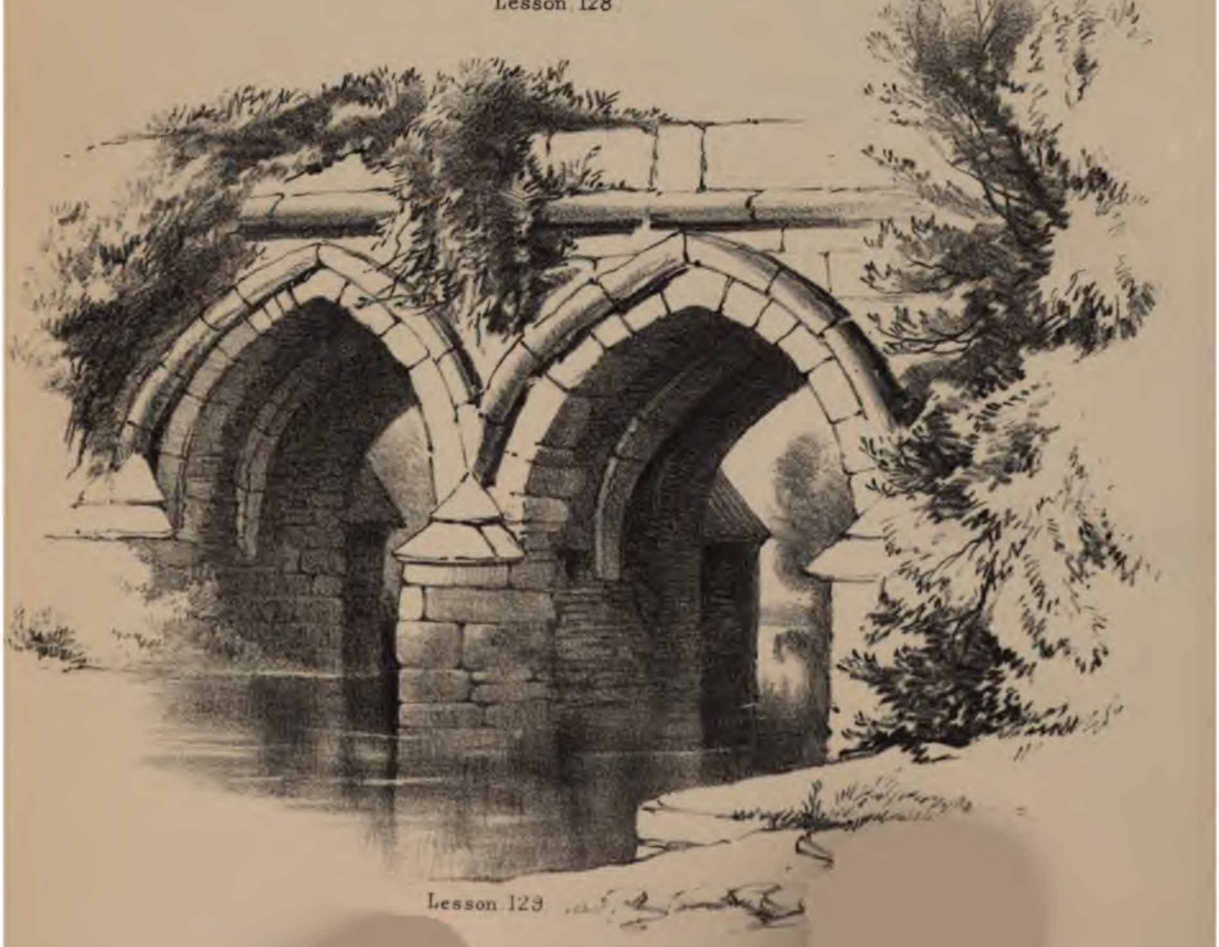


283. Reference to the woodcut will show that your eye is supposed to be level with the tops of the piers on which the arches rest. As in all the foregoing Lessons, the whole subject must be sketched before the details of windows, arches, and chimneys are put in.

284. **On the representation of Still Water.**—If you reflect how water is distinguished from surrounding objects, you will find that it is *not* by its colour, but by its reflectiveness, that you become cognizant of it. It may not be convenient to observe these truths from Nature just now, but you may lay flat on the table before you a mirror, and by placing on and behind it several objects, of various sizes and in various inclinations, make actual observation of these facts. Water, however, is seldom sufficiently still to render the reflexions quite perfect.



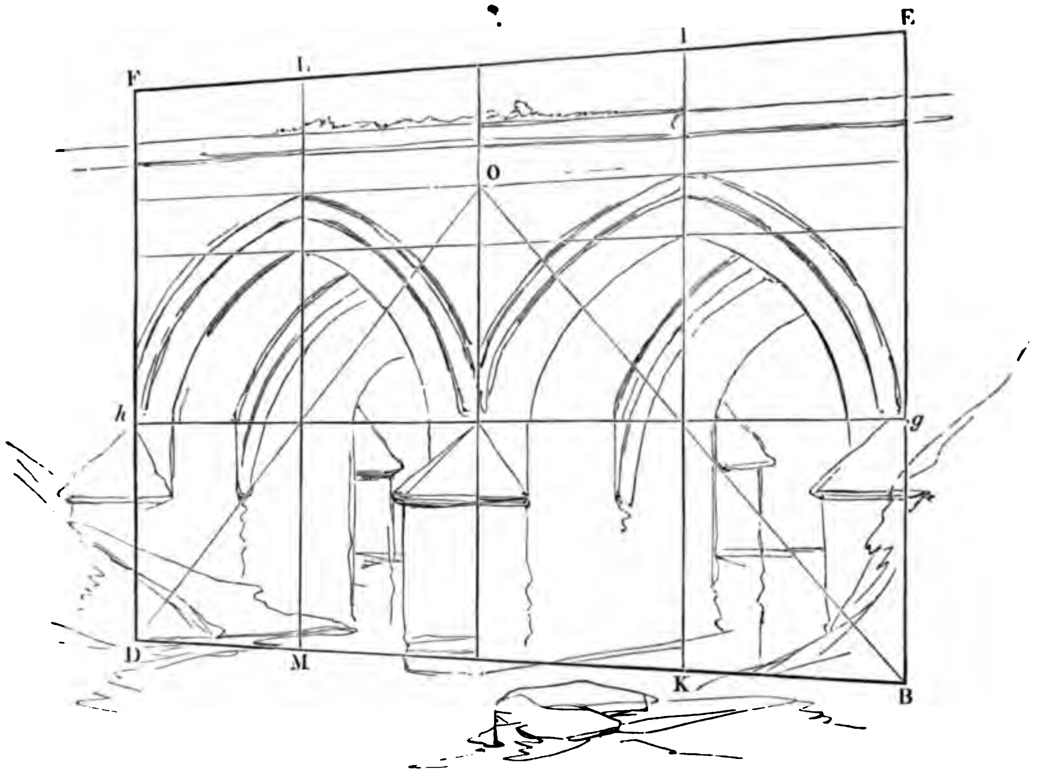
Lesson 128.



Lesson 129.

LESSON 129.

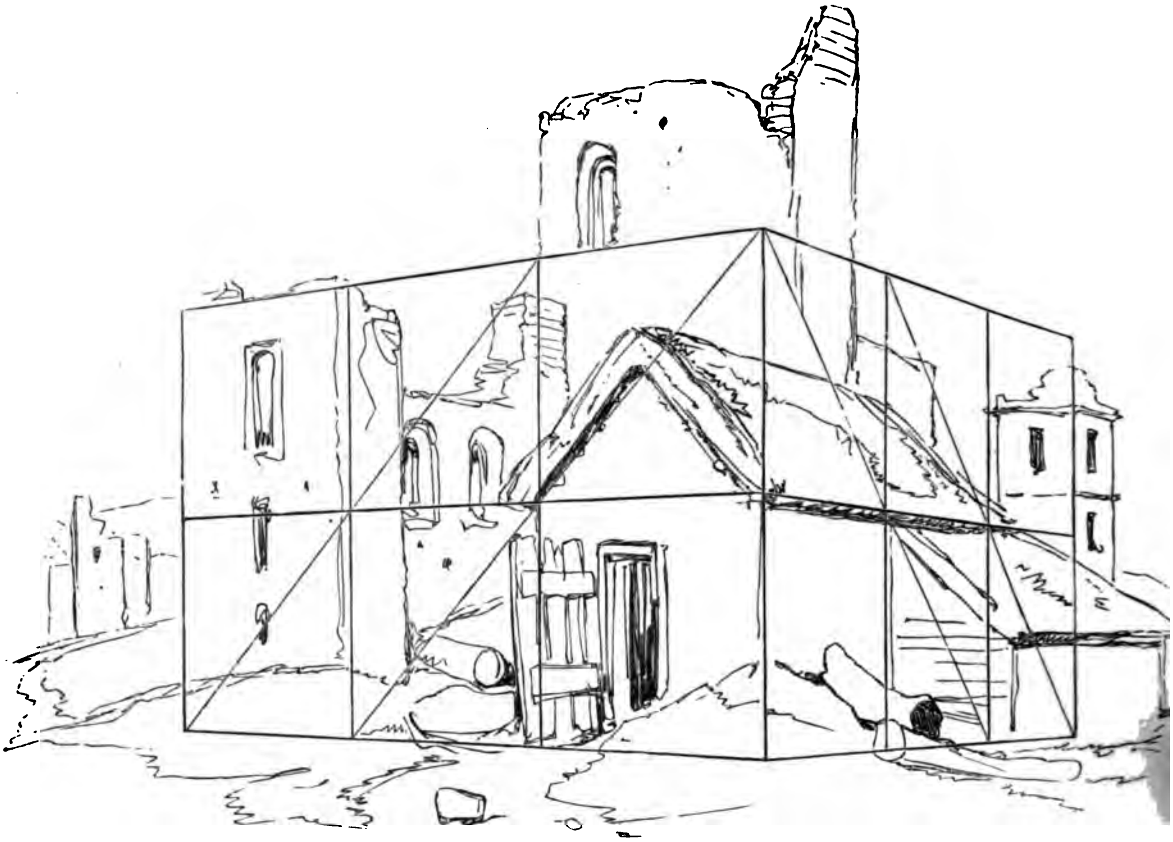
AN OLD BRIDGE AT LAUNCESTON, CORNWALL.



285. This subject being one of architectural character, and consisting of Gothic arches, requires the aid of a diagram to ensure accuracy in the drawing of the arches. The lines **D F E B**, enclosing the entire subject, should be first drawn; the horizon, or the height of the eye, is at *g h*. Every line indicative of the spaces between the stones of the arches should tend to the centre of each arch. The subject being on a larger scale requires that the more minute circumstances of detail should be noticed, such as the opening of the joints of the stones, the fractures of their outer angles, and the lights which steal in upon them. The expression of the curvature of the moulding round each arch should be very carefully given.

286. The whole of the shading, even the ivy and foliage, is first laid in, either with the stump, or flat side of the pencil, held as in the figure in ¶ 206, but is afterwards completed to its required depth with the pencil pointed, taking care to place its character *always on the limits of the shade,* to which it must assimilate in depth or lightness of colour, and when drawing the branches, *never allowing their outer extremities to be seen.*

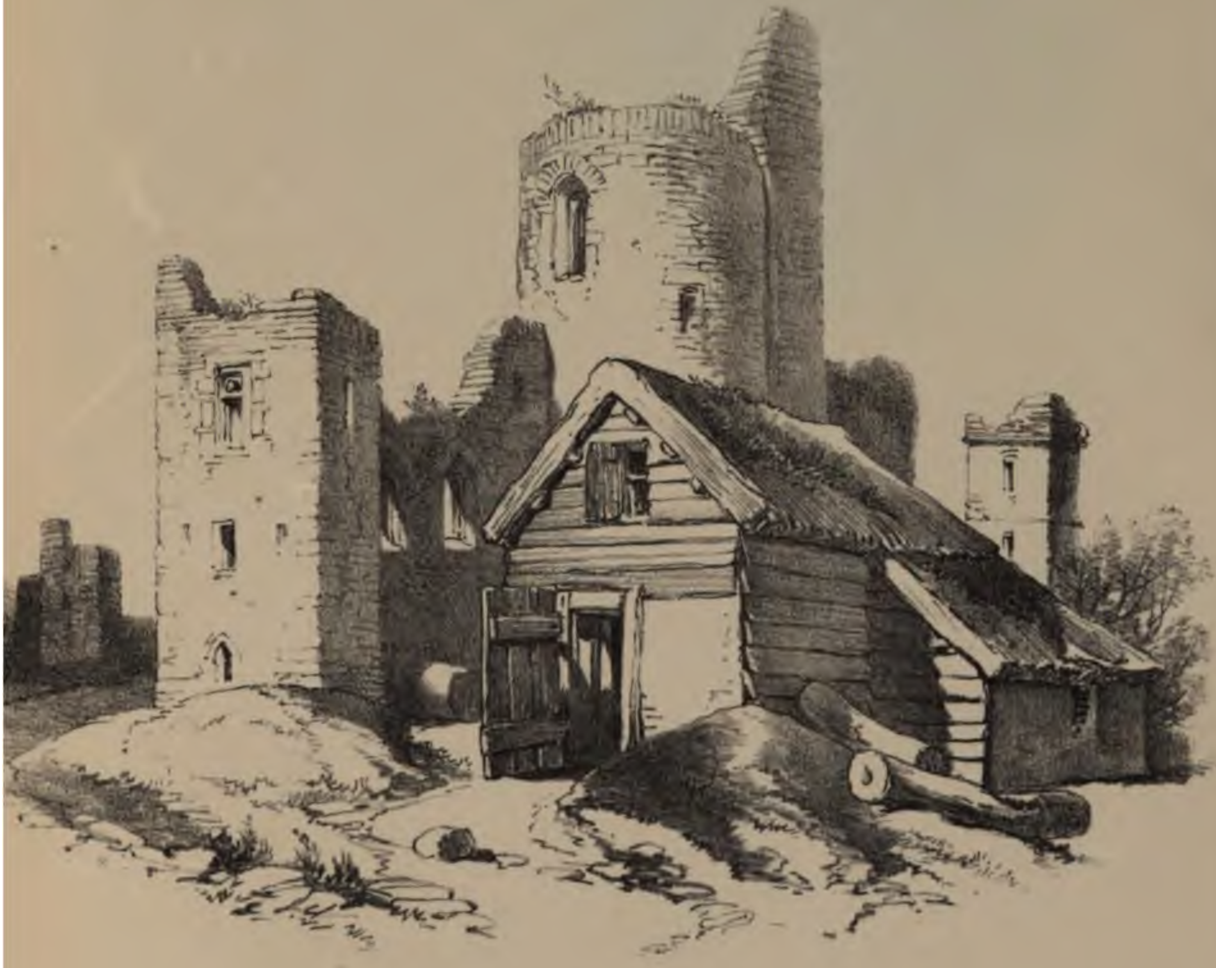
LESSON 130.



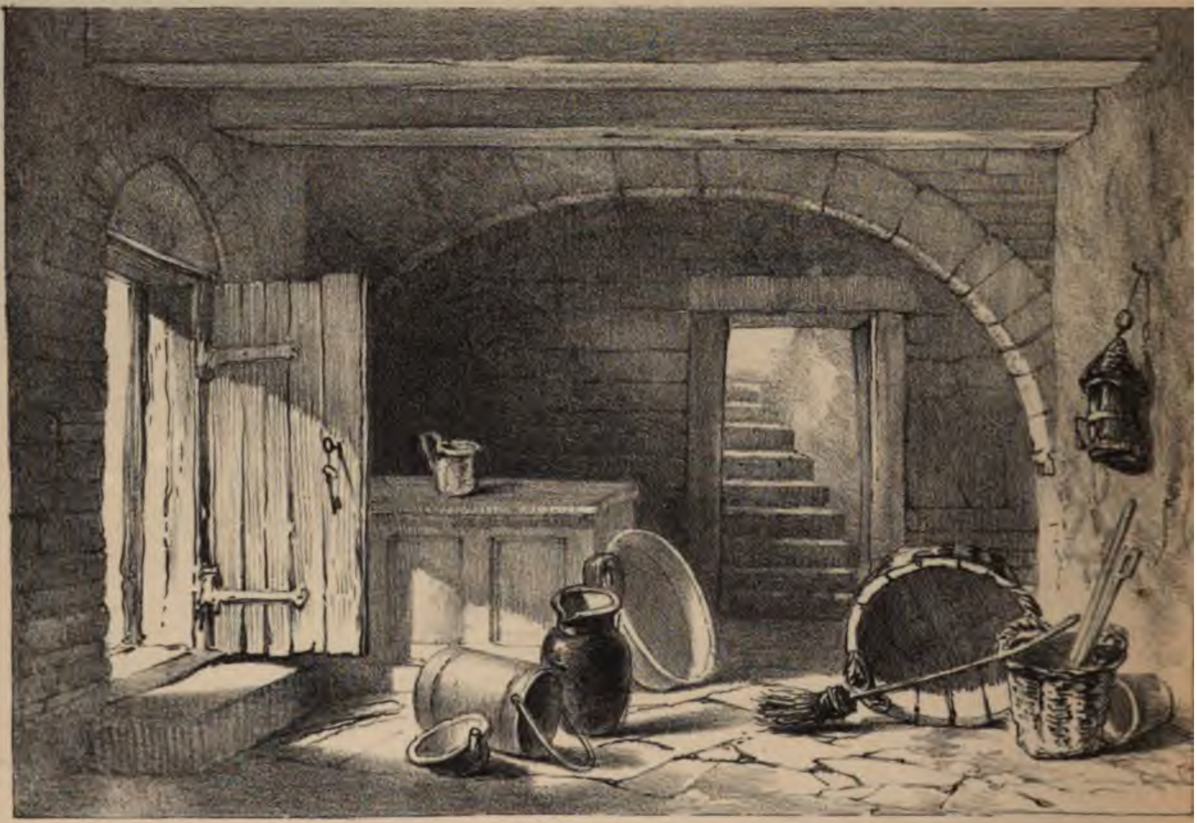
287. This Lesson presents to you several features which are intended to exercise you in greater intricacy of outline, and in giving the different degrees of intensity in the shades and shadows, as well as in the separation of the objects from each other, so as to show their different distances.

288. The shed in the foreground must be first drawn accurately, and next the round tower, deciding first on its height by comparison with the shed, and observing where its upright lines touch the roof of the shed; then draw the broken wall, which has the two windows in it, and the square tower connected with it. Afterwards draw the distant tower, the hills on the left, and the varied curves of the lines on the ground, which are as essential to the interest of the subject as are any other lines it contains, because they add to the variety, which is always so pleasing, and which you should ever seek to obtain.

289. In completing the drawing you must endeavour to express the distance of the castle, and the proximity of the shed and foreground.



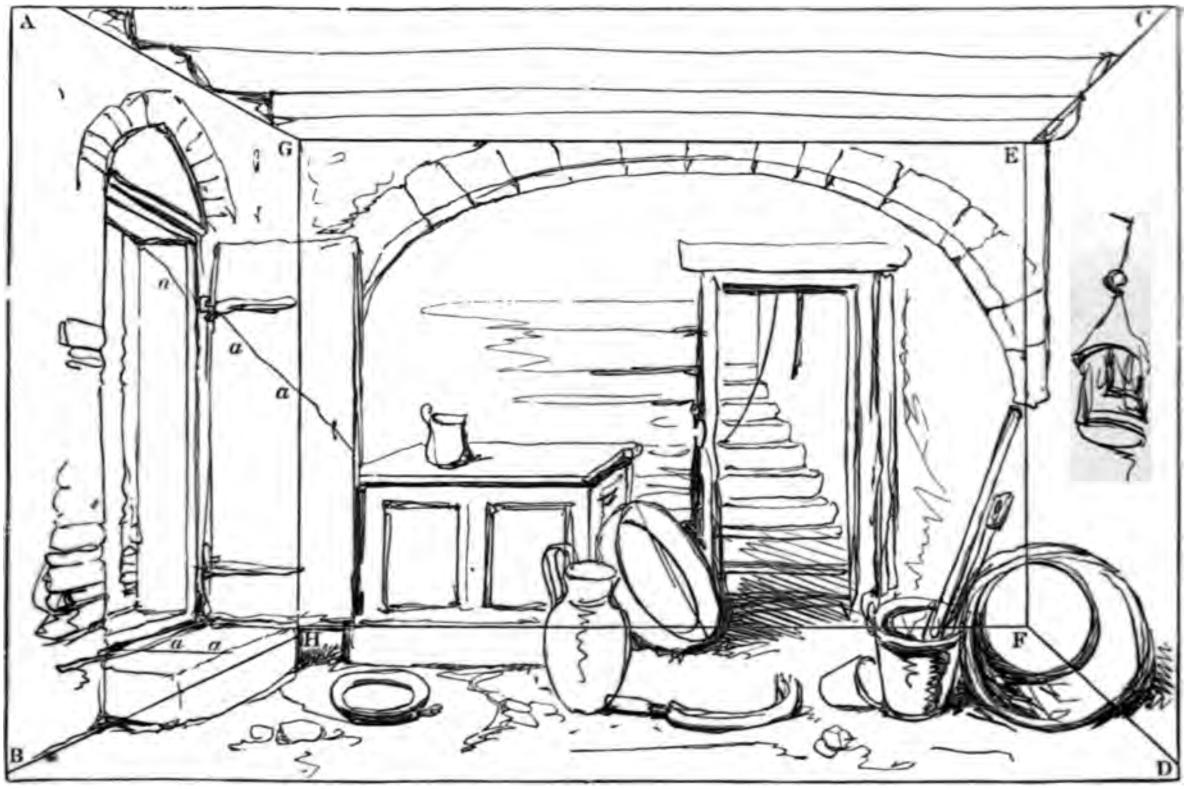
Lesson 130



Lesson 131.

LESSON 131.

INTERIOR OF AN APARTMENT IN TUNBRIDGE PRIORY, NOW DESTROYED.

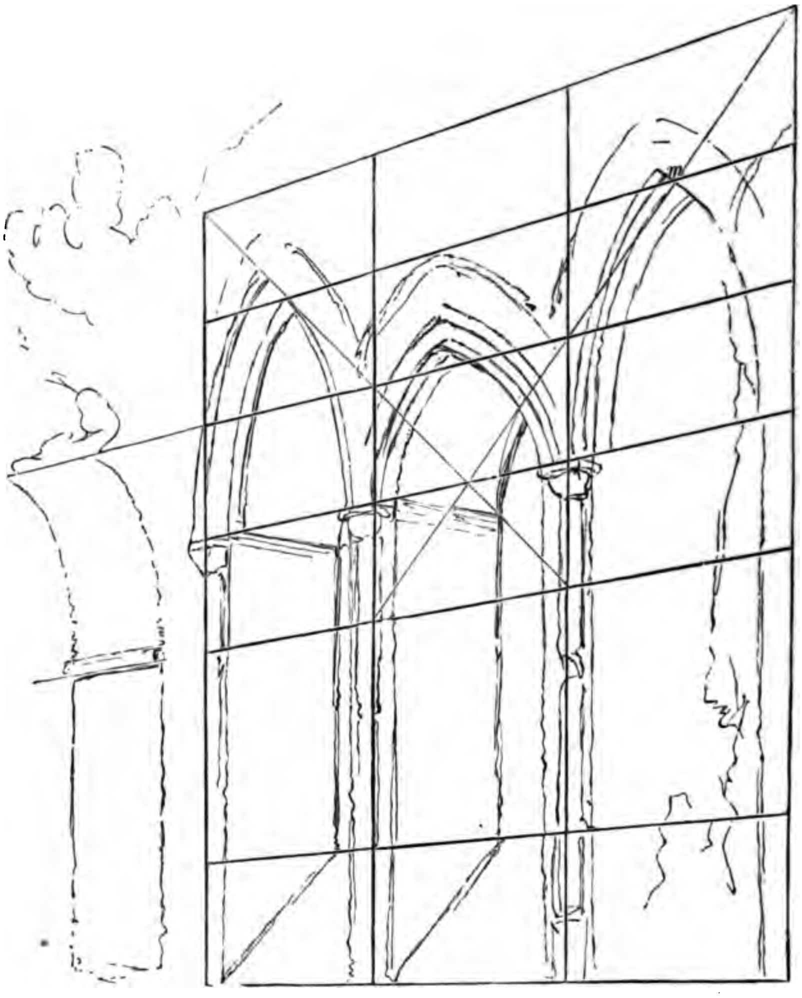


290. This Lesson is a combination of several preceding Lessons, which you will have already studied and practised during your progress, and they are brought together here with the intention of showing you that a whole is made up of parts, and that to ensure a whole picture being well done, its parts must be well done. This subject should be considerably enlarged.

291. As no objects, except those near the door, could be in bright sunshine, so all, except those, must have a light tone of colour placed all over them; this should be done with the stump. Pass this fearlessly all over, the small lights can afterwards be removed by cutting a small hole in clean piece of paper, laying the opening on the part to be removed, and then rubbing out with India rubber. Such parts as require to be lighter, but not absolutely white, can be so made by bread. The drawing must be finished with the pencil.

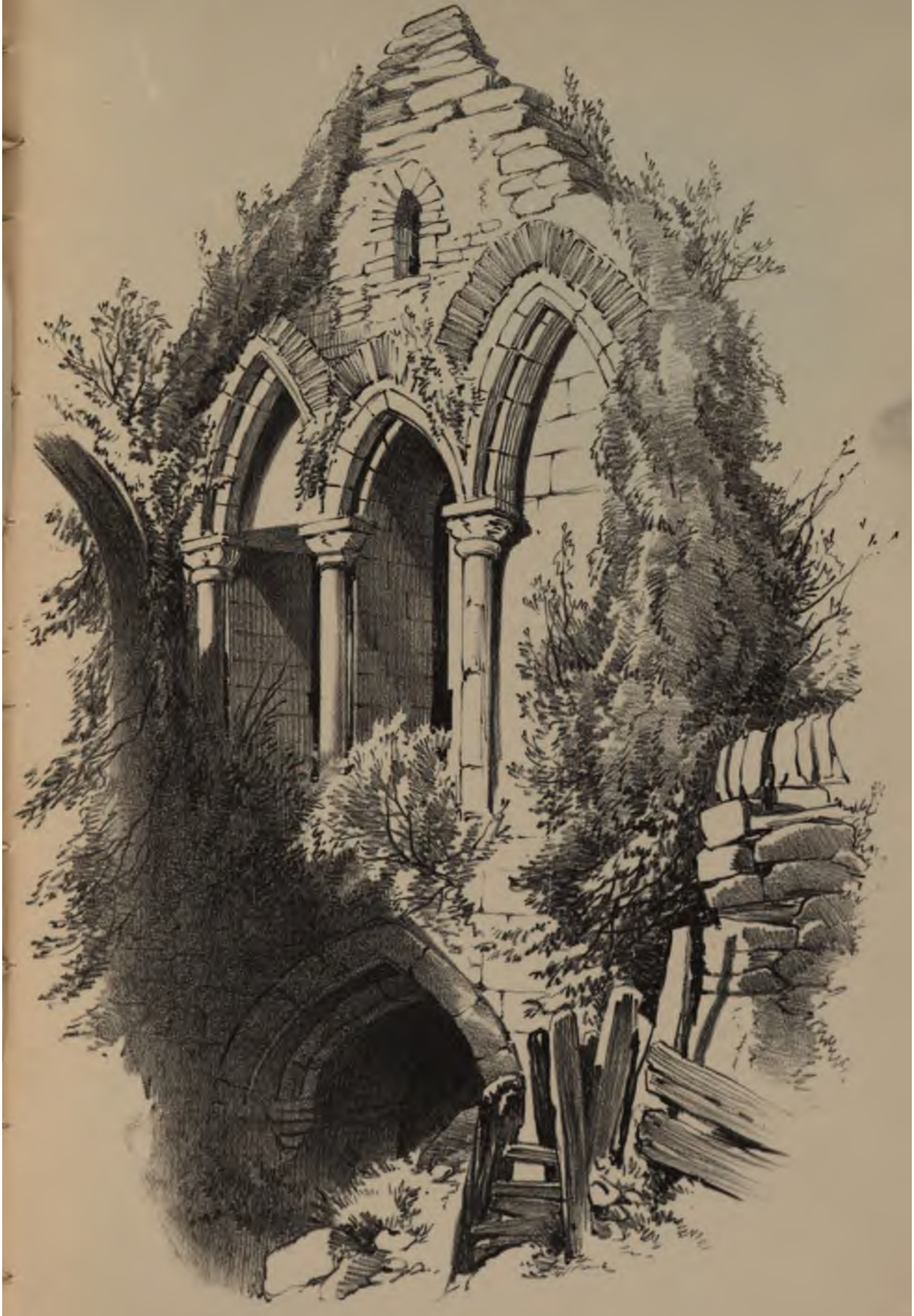
LESSON 132.

PART OF BEESTON PRIORY, NORFOLK.

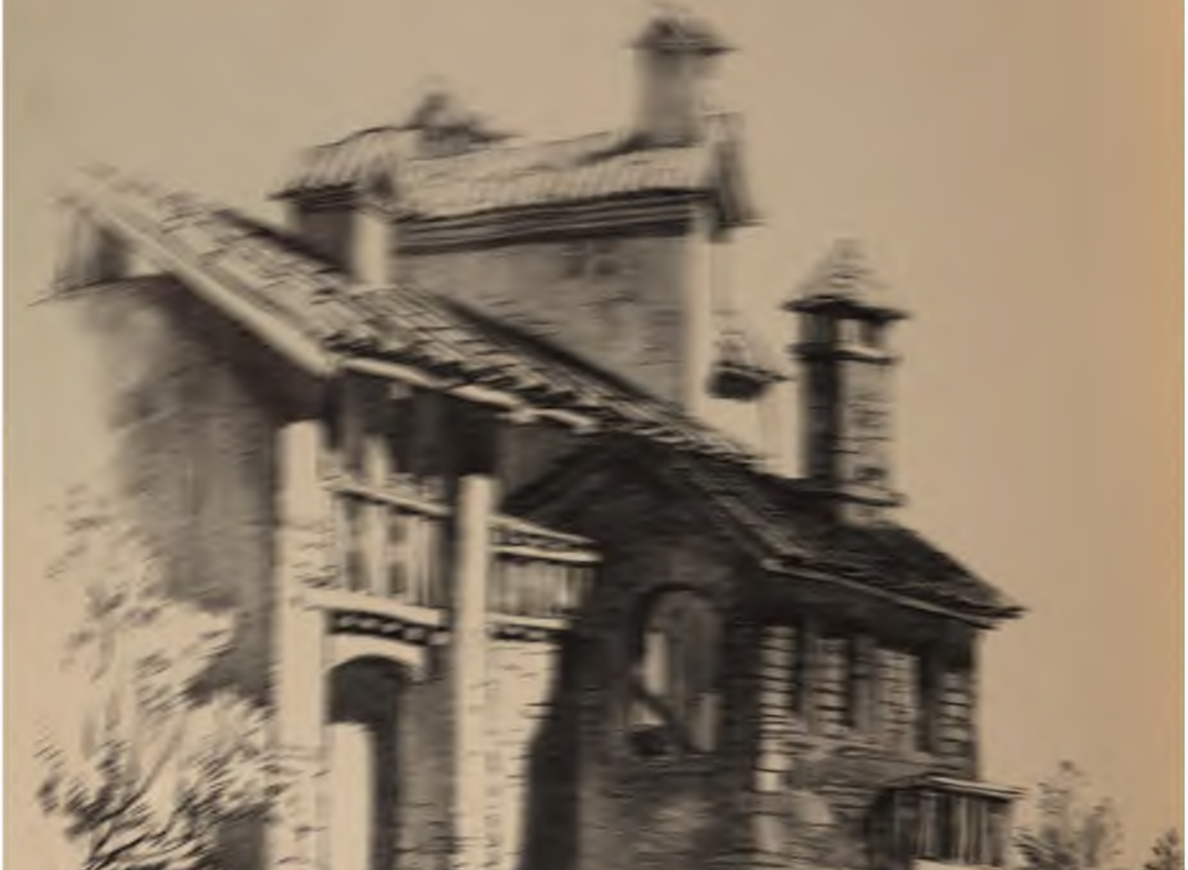


292. This Lesson is presented to exercise you in drawing gothic arches, when seen considerably above the eye.

293. When the sketch is completed, the shading should be laid in with the stump, which may be more fearlessly applied to the broad shadow on the left, and to the foliage, than to the architecture, lest by any chance the purity and sharpness of the edges should be injured. *Shade, even the lightest, passing over an object prevents us from seeing it clearly,* and as it becomes darker, it obscures our view more and more, until it finally becomes so deep as to obliterate it altogether.



Lesson 132.



Lesson 133.

294. The reverse, however, is the case with the light, which *reveals objects more clearly.* Hence, then, it will be seen in looking at this subject, that these laws of nature have been attended to, for in the sun-lit parts, the building, its features, and the stones composing them, are *all clearly defined:* the ivy, the foliage, and the posts also; but on the shaded sides of the arches the stones, and whatever else the broad mass of shadow on the left falls over, whether foliage, herbage, or stones, are barely exhibited. You will also see that this shadow is made darkest where it is nearest to the object which casts it, and gradually lighter as it recedes from it.

LESSON 133.

295. The subject of this Lesson is an Italian building, in drawing which you should bear in mind the instructions of Lessons 108 and 109, and in shading, the instructions of last Lesson, which may readily be adapted here.

The principal part of the shading may be laid in with a stump, so as to avoid as much as possible, the appearance of lines in the shades and shadows; except just so much as may show that the walls are perpendicular. Keep all the edges distinct and sharp, and the outline clear, varied in colour, and everywhere darker than the shade or shadow to which it may be continuous. This rule should invariably be observed.

LESSON 134.

PART OF TUNBRIDGE CASTLE, KENT.

296. This subject being simple, no diagram is given, but your attention is particularly required to the method of shading, and of showing the difference between the local colour of the various features,—that is, the difference in their depth of colour, irrespective of shade; as, for instance, the ivy, which is darker in its local colour than the stones of which the castle is built; the small tower of the castle, which is generally darker than the masonry of the rest of the building. This local colour may be put in with the stump. The only danger in using the stump is, that the clearness of the outlines is in jeopardy; and, if destroyed, the brilliancy and precision of the drawing would be effectually ruined.

297. When cylindrical objects, such as these towers, and the stems of trees, possess any marked character or irregularity of surface, that character or irregularity is most plainly seen in that part *where the light is gradually falling into the shade,* as shown in the large tower, on which the stones are marked most plainly in that part; where also their separations are not only shown by a darker line, but that, on the upper edge of some of them, there is a bright and narrow line of light.

298. In buildings which, like this, have been for ages exposed to the weather, wind, and sun, and the damp from the ground, the courses of the stones or bricks, immediately on and near the ground, become more evident; the cement falls away from between them, and the stones more or less disintegrate, according as they are of a soft nature, or to the length of time they may have been exposed to these influences.

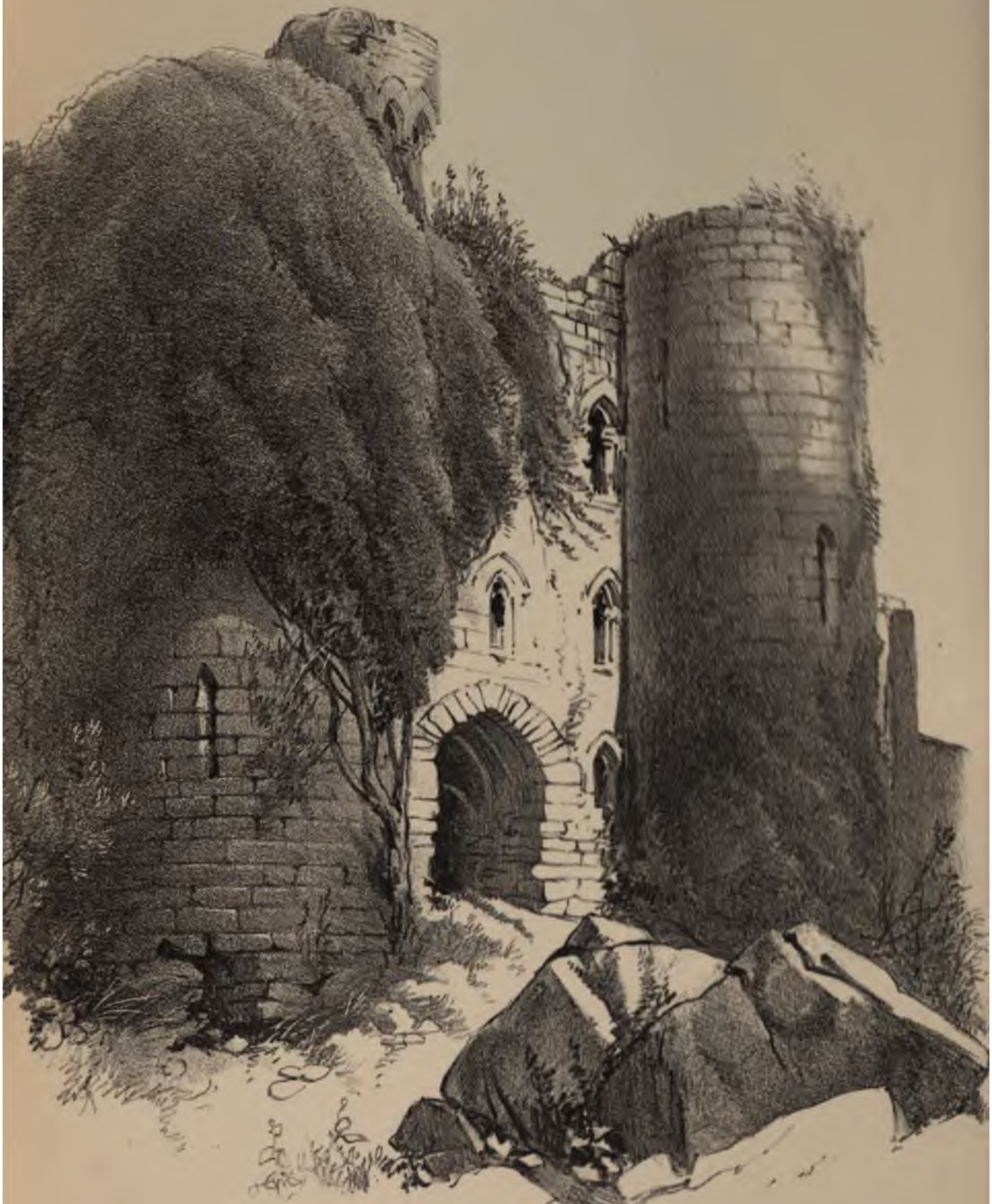
299. Art is not only required to represent the entire forms of objects and their separate parts, but to convey to the mind an impression of their separate qualities or peculiarities. In conveying these impressions consist the chief difficulties of Art. The characteristics of hard, soft, flexible, opaque or transparent, space or distance, &c., &c., have no real existence in Art; consequently these impressions are conveyed to the mind in a great degree, or almost entirely, by comparison, as, for instance, in this subject, if the shade over the ivy were as dark or darker than the shades and shadows of the building, it would look equally or more solid, and the building, by comparison, flimsy—thus imbuing the mind with impressions contrary to the truth, and to what we know and experience; we must, therefore, pronounce it to be bad. It is not Art.

LESSON 135. (A FOREGROUND.)

300. This Lesson shows how the most common-place materials—a few stones and a bit of road with a few accessories—may be made interesting by a little artistic treatment; and is intended to encourage the student in attempting similar objects from Nature.

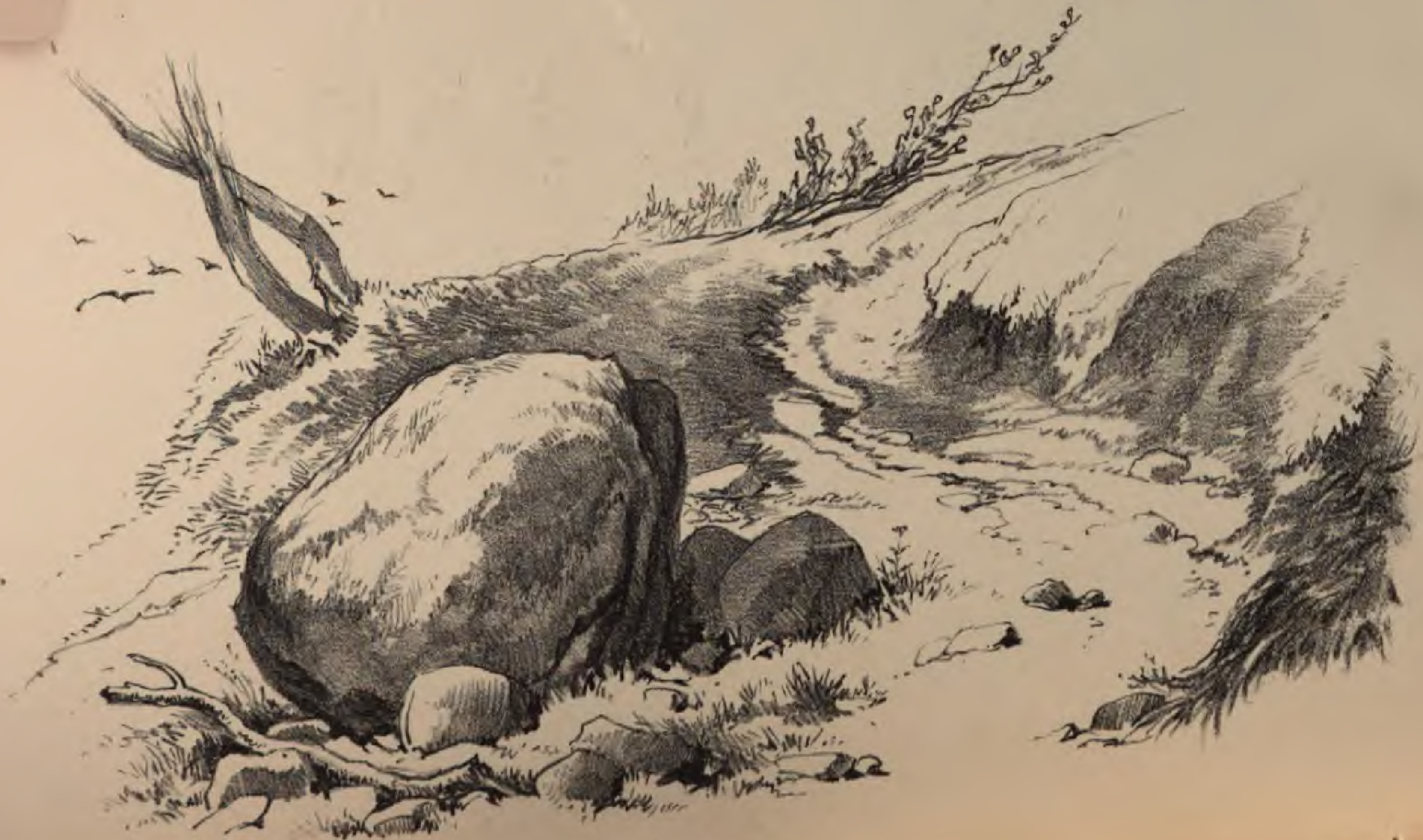
LESSON 136. (FRONTISPIECE.)

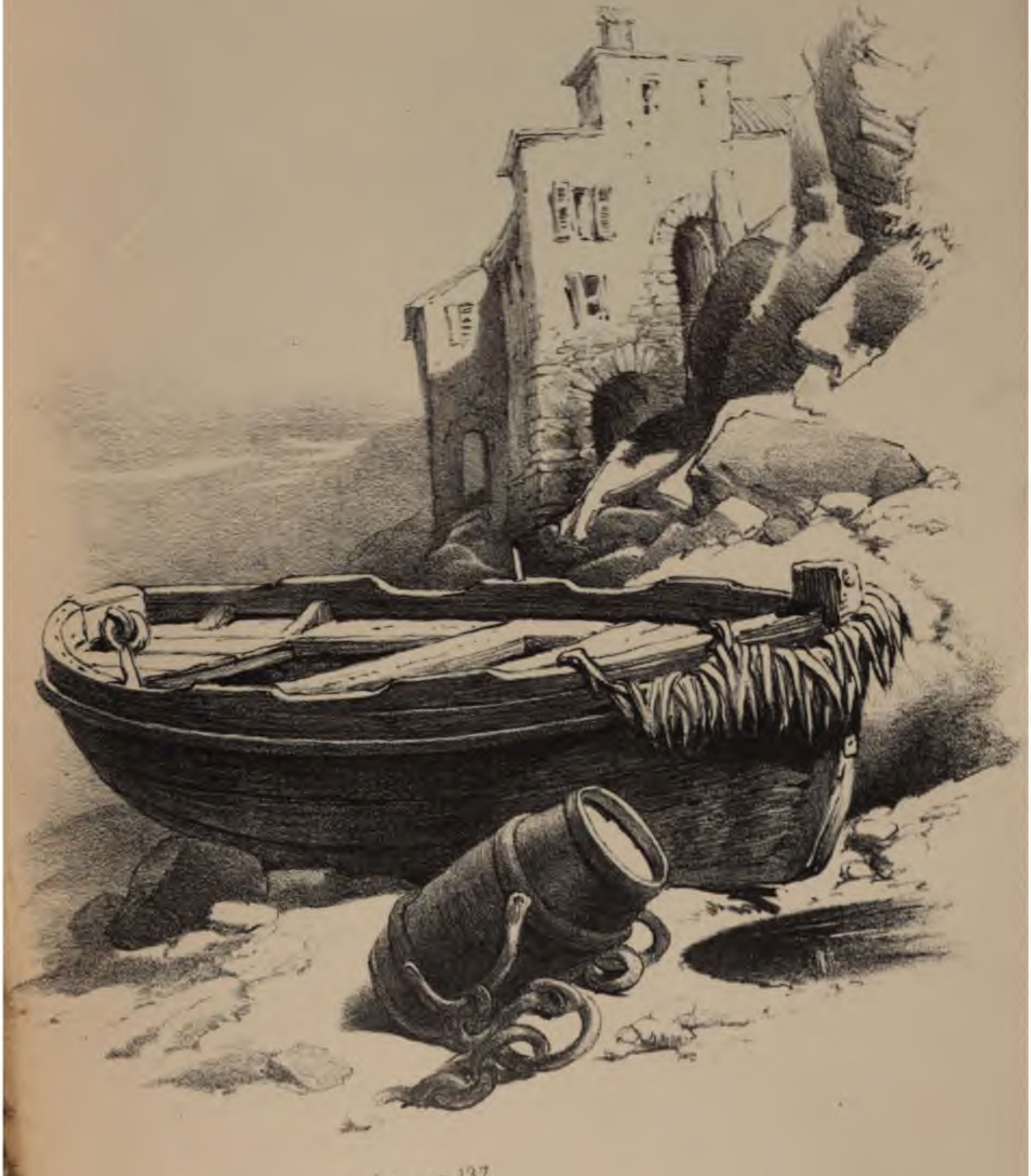
301. This Lesson will afford you an illustration of what may be done by the enlargement and amplification of a comparatively simple block of building (Lesson 123). Thought has been bestowed on the subject, so as to render each portion suggestive of such characteristics as might be found in Nature, and with very forcible expression of those truths, whether of hardness, or softness, or intricacy of material, brightness of light, or repose of shade, projectiveness of front parts and retirement of such as are more remote. These are the impressions to be obtained from Nature, and these, therefore, it should be the purpose of Art to convey.



Lesson 134.

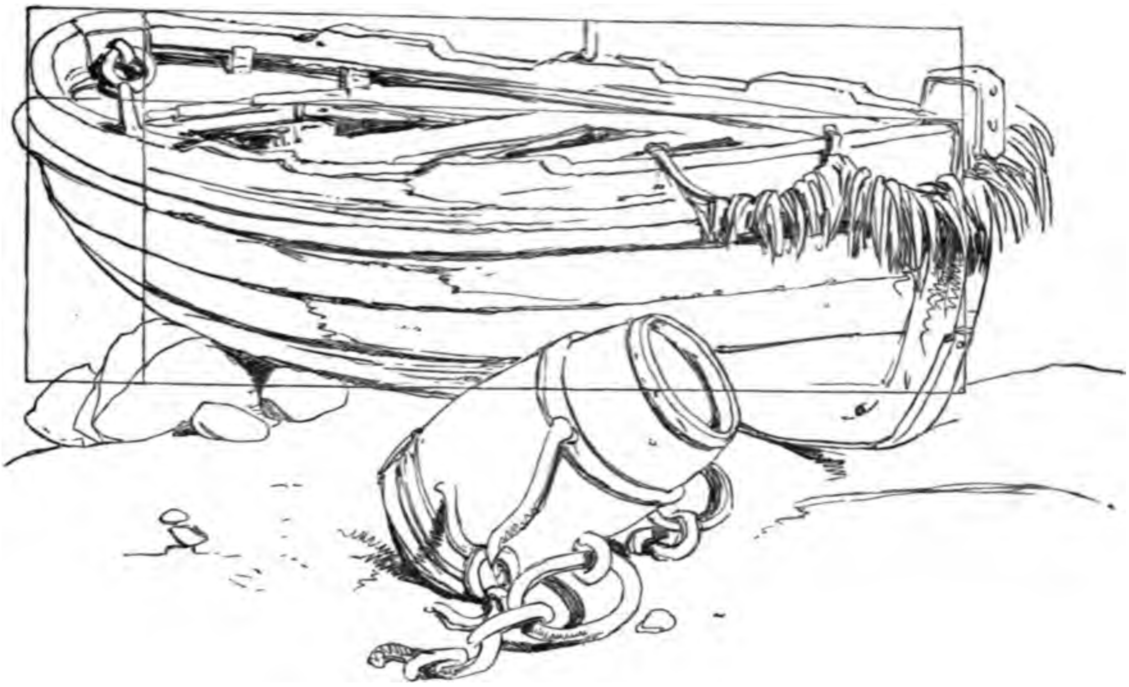
PLATE 40.





Lesson 137.

LESSON 137.



302. In an early Lesson I told you that the best means for measuring the precise curvature of curved lines was by comparing them with curved lines. Amongst such objects as are composed of curves there are few more difficult to draw than boats, especially when they are seen foreshortened, as in this example. This difficulty arises from the *appearance* of these lines being so dissimilar to their *reality*. You will comprehend what is meant if you refer to the lithograph or the woodcut. When you regard the further side of the boat, you see it is nearly a straight line, whilst the corresponding and nearer side is a curved line, differing in its degree of curvature in every part. Now these two very dissimilar lines require to be so drawn that their dissimilarity in the drawing shall impress the mind with the idea that in nature they are precisely alike in their curvature. This is the difficulty, and can only be met by instituting perpendicular and horizontal lines, such as you see in the woodcut; they are here drawn, and so you must draw them, until you can mentally contrive and set up a similar kind of framework wherewith you may be able to judge of the curves of every variety to be found in boats. No two of them are alike. I have added a buoy, and some portions of a

chain attached to it. The place of this, and of the distant house and rocks, must be obtained by reference to the boat, which should be the object first drawn.

303. Beyond correctness in the forms of the objects, and their associations, there are other circumstances which equally demand your attention, and equally require to be achieved.

304. In the first place you have to express the rotundity of the boat by the shades and shadows; you must not only express the bulging sides of the boat, but the hollow well within it, which must look as if you could drop a stone into it.

305. Everywhere you will see, that whatever may be the delicacy or the intensity of the shades and shadows, the outline attached to them in every part, is always rather darker. There is also an attempt to express local colour,—for you will see that the outside, or tarred part, has a tint all over it, whilst the inside, forming the seats, &c., is left white. So far the boat would look round, but not sufficiently solid, until you place on the planks lines which shall represent the grain of the wood; these being done, your boat should not only look round but substantial. The buoy has no other lines than such as express its form; hence its surface gives the idea of its being smoother than that of the boat. In the distance, you see little appearance of lines, except such as mark the form of the rocks and the buildings, and these of very delicate and uniform colour. Now, the result of all this is, or ought to be, *the expression of space;* it should seem as if the objects were so separate from each other, that we could pass round them; that from the buoy to the boat is but a step, whilst to reach the buildings would require many.

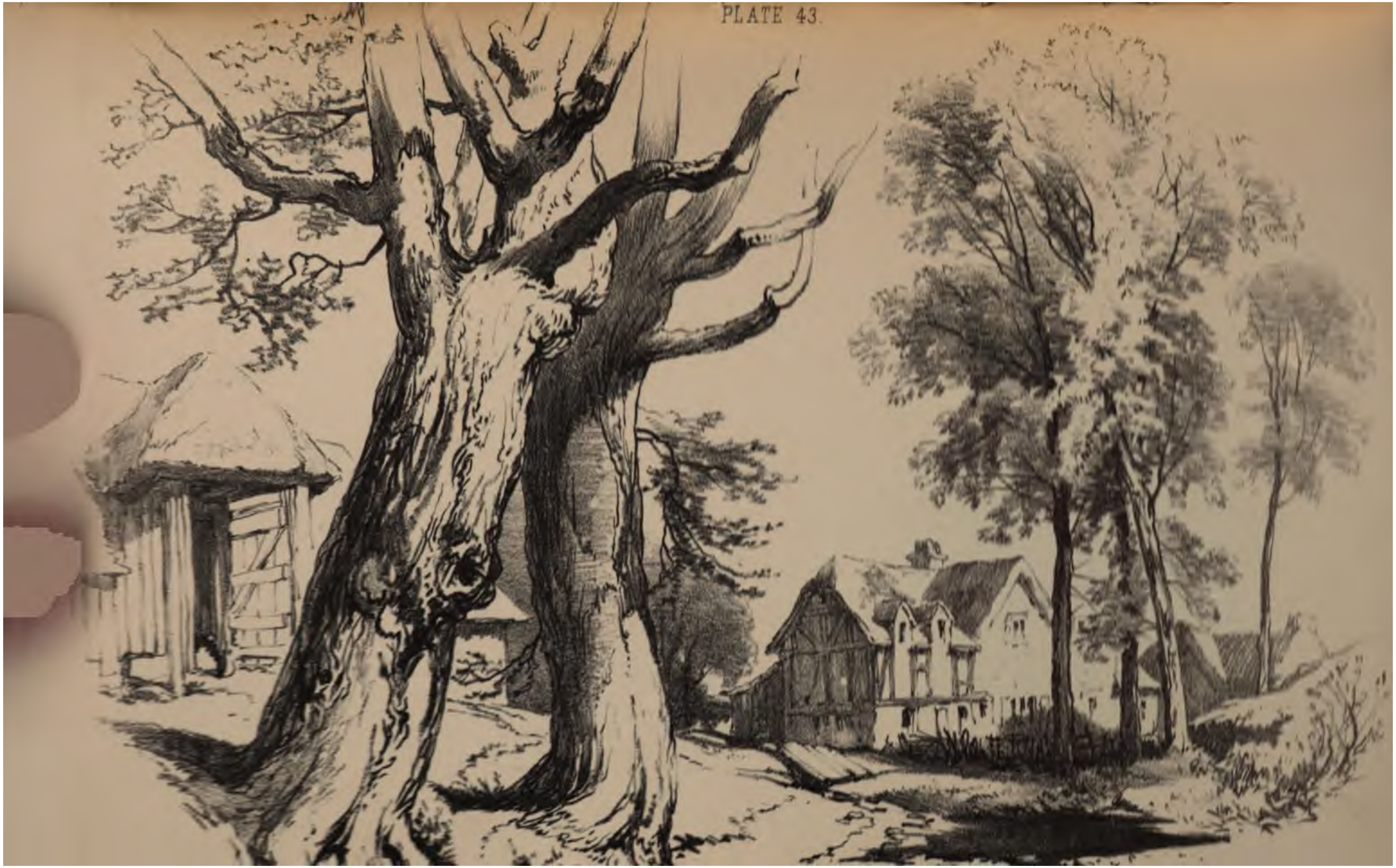
306. Look now at all the surfaces, the perpendicular and flat walls of the buildings,—the nearly upright, but irregular, surfaces of the rocks,—the various undulations of the ground, now smooth, now rough and stony: then to the liquid pool, which reflects a portions of the stem of the boat. Although some of these are but slightly touched, in subordination to the principal objects—the boat and buoy—these characteristics are recognised and felt, and materially aid the impression of truthfulness we derive from the whole.

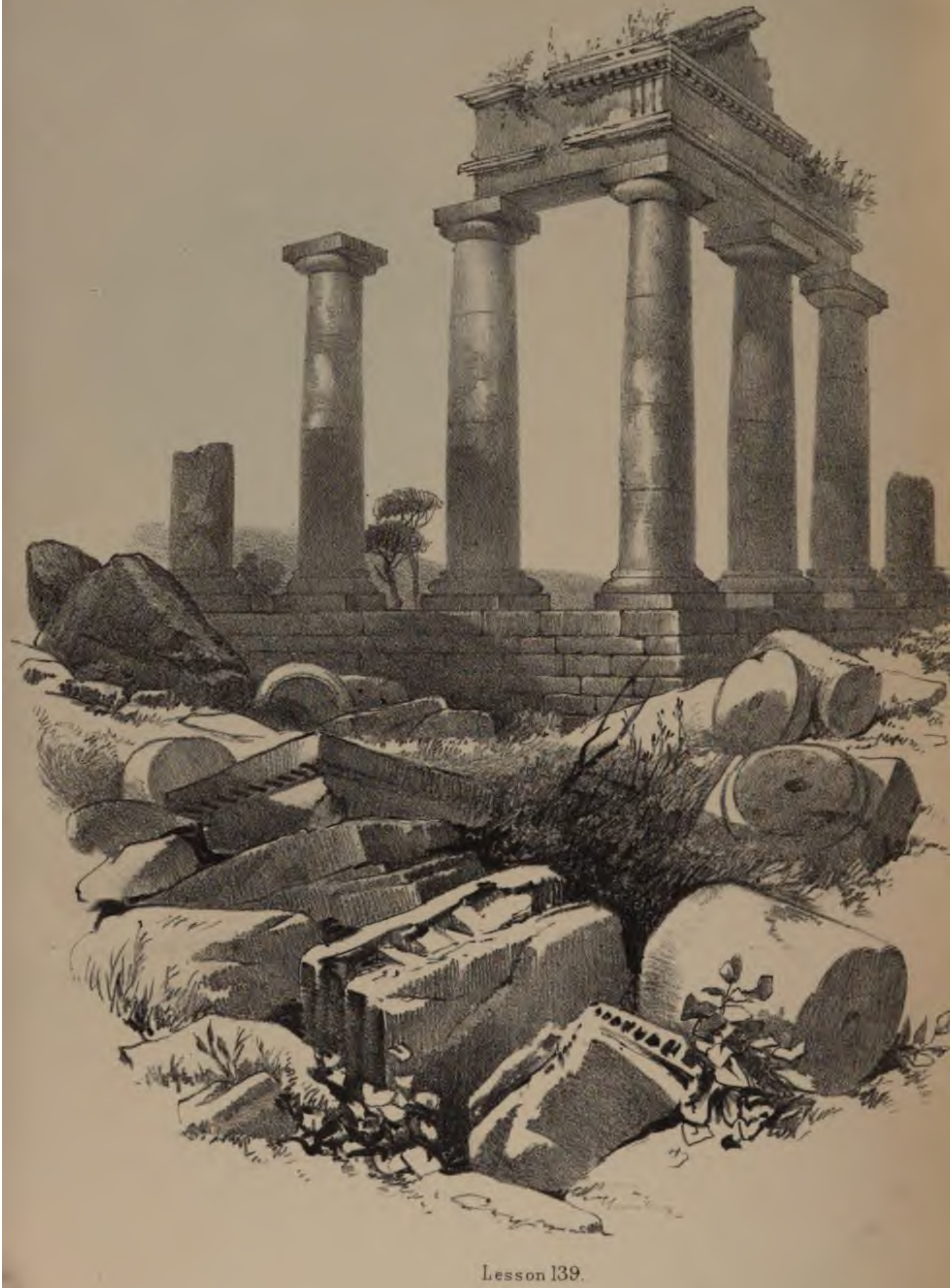
LESSON 138.

307. In Lesson 108 it was suggested that *Lessons on Trees* might be studied simultaneously with these Lessons. You have here an example of the combination of Lessons 117 and 124 (as part of a background), with trees, stones, and water to form a foreground.

The arrangement is in accordance with the instructions in ¶ 168, to which you should refer.

PLATE 43.





Lesson 139.

LESSON 139.

REMAINS OF A GREEK TEMPLE.

308. In this Lesson you will have to exercise the higher and more difficult qualities of Art. Should you require a diagram in order to obtain the indispensable neatness and accuracy of the building, which is more than probable, it will be sufficient to refer to Lesson 108.

309. To accomplish the foreground, and to exhibit its natural characteristics, great attention must be first paid to all the leading lines, which should everywhere be carefully preserved and variously emphasised. Referring to Greek architecture it may be stated that the three recognised 'Orders'—the Doric, the Ionic, and the Corinthian—were distinguished chiefly by the character of their pillars, which were divided into '*caps*' or capitals, '*shafts*,' and '*bases*.' In the Doric order (which this partly resembles) the cap is composed of a square or '*abacus*,' and an '*echinus*' or compressed ovoid. The sides of the shaft are not straight, as might be supposed, but *curved*, causing a swelling or '*entasis*' in the middle; and the base is composed of one or more discs, and underneath all a square stone called the '*plinth*.' The portion resting on the pillars, and composed of three parts, is called the '*entablature*;' and the gable above the entablature is known as the '*pediment*.' The mass of stonework on which the various pillars stand is called the plinth of the temple.

310. The shades on the building, unlike those of the foreground, differ but little from each other in their depth of colour, and it will be seen that, if we have any impression of the columns being round, it is due to the cast-shadows thrown on them from the caps and cornice. The shading of the distance and on the temple must be *scrupulously even, delicate, and refined.*

311. It may be observed that a great portion of the pleasure this classical subject affords is due to the delicacy and refinement of the temple and distance contrasting with the broken and undulating lines of the foreground and the objects composing it, which, contrasting with the regular and perpendicular lines of the building, altogether afford that variety which is such an indispensable element of Art.

312. **On Contrast.**—But it is not alone from the variety of form that we derive pleasure, we are equally indebted to the different sizes of the columns of the temple, their different height, their different light and shade, no two of them being alike:* the different magnitude of the objects in the foreground, ranging from large to minute; the contrast of the smooth and chiselled surfaces of the temple with the loose, broken, and irregular characters of the ground and fragments, the hand of man and the hand of Nature, the civilised and the wild, the distant and the near, the dark and the light, all contrast with each other, and, by that contrast, aid each other in conveying those impressions to the mind which contribute so essentially to the pleasures we derive from the contemplation of Art.

313. **On Fac-simile Imitation.**—Neatness and care would alone be sufficient to accomplish the building, every line, every light and shade, of which is distinctly seen, but something more is required in the foreground; no patience, however enduring, no vigilance, however untiring, no sacrifice of time or labour, would serve to imitate the ground, as the building may be imitated, either here or in nature; nor is it required. We recognised the forms of the building and know when they are true, but we do not recognise the fragments scattered in the foreground in like manner, because their forms are less definite. We there notice the fractured remains, the irregular and broken ground, the moss, the grass, the stones, the leaves, all lying in disorder, wild and waste, and judge whether they be truly depicted by the force with which these impressions are brought home to the mind; and if, joined to these, we can awaken contemplations akin to those which gave occasion to the following beautiful lines from Byron, we shall have achieved the highest effects of Art:—

'There is a temple in ruin stands,
Fashioned by long-forgotten hands;
Two or three columns and many a stone,
Marble and granite, with grass overgrown!
Out upon time! it will leave no more
Of the things to come than the things before.
Out upon Time! who for ever will leave
But enough of the past for the future to grieve
O'er that which hath been, and o'er that which must be.
What we have seen our sons shall see:
Remnants of things that have passed away,
Fragments of stone reared by creatures of clay!'

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* See *Principles and Practice of Art*, Chapter on Composition.

CONCLUDING OBSERVATIONS.

314. I encourage you now to look back on all you have acquired, and compare, if you can, the condition in which your last Lesson leaves you with that in which your first Lesson found you. Look around on nature, on objects in-door and out-of-doors, and ask yourself whether you view them with the indifference you formerly did, or whether you have found out through the medium of Art new sources of pleasure, which were before unknown, and which, for aught you then felt, might as well have had no existence. Are you sensible of no new enjoyments? Do you still look with the same blank indifference on Nature as formerly? Then have you *copied*, not studied, your Lessons; but if you can look around, and derive from your survey of objects, new pleasures and new sensations, then have you *studied* your Lessons, not merely and mechanically copied them—then have you spent your time well, not trifled with it, and have obtained your reward. You have learned that Art is addressed to the mind; instead of the belief that it depended on the materials, you have found that it emanates from *acquired knowledge, correct observation, and sound judgment.*

315. I trust these Lessons will have served to dissipate the idea that to acquire Art to a useful and gratifying extent, a genius is needed; that they have proved a knowledge of it to be the result of education, and that Art *may be possessed by all in a valuable degree,* if it can only be attained by few in a remarkable degree; but, above all, I hope I shall have proved how vain is the general attempt to colour, how forlorn the hope, unless with knowledge, which I have here endeavoured to impart. All which has been here taught of the laws of Nature, respecting the form, the light and the shade, and the character of objects, is as indispensable to the use of the brush as to that of the pencil. Can you, when reviewing the many steps taken, sometimes difficult ones,—the many truths of Nature you have learned, think my assertion untrue—that without such knowledge an attempt to colour is absolutely hopeless? The contrary would be to suppose the highest efforts the most easy, or that Art lay rather in the implements than in the mind using them,—that, in short, the means are the end, the box of colours the only enviable acquisition, or how to mix them the most precious knowledge.

316. But it must be unnecessary to say another word. If you have studied in earnest what I have endeavoured in these Lessons to put before you, you are already persuaded that you have not learned in vain. The end of Art is to depict nature truly, by whatever means, and you will have seen that such truths as you have learned must be as important to colour as they have been to the pencil: you have already acquired a great amount of learning, which at once advances you far on the road towards a skilful use of the brush.

317. Should you find no time to prosecute Art beyond these Lessons, their exercise will have expanded the faculties they have employed, and left the mind richer, the feelings more acute and embellished, and the hand ready, with the means it has acquired of transcribing from Nature, whatever passages may have afforded pleasure either in the power to render its images palpable, or to minister to the every-day necessities and realities of life.

THE END.

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